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ABSTRACT

This interim report, the first of three requested by Congress from NIE, is in response to Congress' instructions to NIE via the 1974 ESEA amendments to (1) conduct a study of compensatory education programs which would examine the fundamental purposes and effectiveness of the programs, (2) analyze ways of identifying children in greatest need of compensatory education, (3) consider alternative ways of meeting these children's needs, and (4) consider the feasibility, costs, and consequences of alternative means of distributing Federal compensatory education funds. The present report describes how NIE's research strategy dealt with Congress' instructions and also discusses the fundamental purposes of compensatory education programs and the manner in which NIE is assessing the effectiveness of current programs and the consequences of possible changes. The research strategy according to which NIE is conducting its overall study consists of 35 projects organized into the four areas of funds allocation, compensatory services, student development, and administration. Findings from the NIE survey include the following: that in the 1975-76 school year, ESEA Title I represented 3% of total national expenditures and that 90% of the nation's school districts received Title I funds; that the services provided by Title I funds were quite diverse and varied with SES of the school district populations; that students in Title I districts appeared to be concentrated in grades 1-6; and that many students received instruction in more than one subject area--the average amount of time spent in compensatory education being five and one-half hours per week. (RJ)

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EVALUATING COMPENSATORY EDUCATION

An Interim Report on the NIE Compensatory Education Study

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EVALUATING COMPENSATORY EDUCATION

AN INTERIM REPORT ON THE NIE COMPENSATORY EDUCATION STUDY

December 30, 1976

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TABLE OF CONTENTS

Page

LIST OF TABLES v

LIST OF FIGURES vii

PREFACE ix

SUMMARY xi

FIRST INTERIM REPORT OBJECTIVES xii

RESEARCH STRATEGY xii

Funds Allocation xiv

Compensatory Services xiv

Student Development xiv

Administration xv

FINDINGS FROM THE NIE SURVEY OF COMPENSATORY EDUCATION xv

The Scope of Compensatory Education xvi

The Range of Services Provided With Title I Funds xvii

The Characteristics of Students Receiving Services xviii

The Characteristics of Compensatory Instruction xix

CHAPTER I. BACKGROUND AND RESEARCH STRATEGY I-1

REQUEST FOR THE STUDY I-1

LEGISLATIVE HISTORY I-3

THE REPORT I-5

RESEARCH STRATEGY I-5

Fundamental Purposes I-6

STRATEGY FOR ASSESSING COMPENSATORY EDUCATION I-10

TABLE OF CONTENTS (cont'd)

Page

CHAPTER II. FUNDS ALLOCATION II-1

- REVIEW OF CURRENT FUNDS ALLOCATION SYSTEM II-1
  - Procedures for Allocating Funds to School Districts II-2
  - Procedures for Allocating Funds Within School Districts II-3
- EFFECTS OF CURRENT PROCEDURES FOR ALLOCATING FUNDS TO LEAs II-4
  - Distribution of Title I Funds Among Categories of States, Counties, and School Districts II-4
  - Relationships Between Title I and Other Federal and State Grant Programs II-6
  - Within-District Allocation II-9
- ALTERNATIVE MEASURES OF POVERTY . . II-11
  - Updating Poverty Counts II-11
- ALLOCATION OF FUNDS BASED ON ACHIEVEMENT SCORES II-14
  - Allocation to States and Districts II-16
  - Intra-District Allocation II-18

CHAPTER III. EFFECTS ON SERVICES III-1

- COMPENSATORY EDUCATION SERVICES III-1
  - Services Provided With Compensatory Education Funds III-1
  - Recipients of Compensatory Services III-2
  - The Characteristics of Instructional Services III-3
  - Sufficiency of Compensatory Services III-5

TABLE OF CONTENTS (cont'd)

Page

CHAPTER III. (cont'd)

DESCRIBING COMPENSATORY EDUCATION SERVICES III-6

The Lack of information on Compensatory Services III-6

Design of the NIE National Survey of Compensatory Education III-10

PRELIMINARY SURVEY FINDINGS III-12

Scope of Compensatory Education III-13

Characteristics of Compensatory Education III-14

Compensatory Instruction in Reading, Language Arts, and Mathematics III-32

CHAPTER IV. EFFECTS OF SERVICES ON CHILDREN IV-1

ISSUES IV-4

Individualized Instruction IV-4

Instructional Setting IV-7

Amount of Instruction IV-10

Teacher Training IV-12

NIE RESEARCH ON EFFECTS OF SERVICES ON CHILDREN IV-13

The Instructional Dimensions Study IV-13

Other Studies of Program Variables IV-16

CHAPTER V. ADMINISTRATION V-1

FEDERAL ADMINISTRATION V-2

Study of Legal Standards V-3

Study of Federal Administration V-4

TABLE OF CONTENTS (cont'd))

Page

CHAPTER V. (cont'd)
STATE AND LOCAL ADMINISTRATION V-6
Study of State Administration V-6
Study of State Compensatory Education Programs V-7
Data About Local Administration V-9
APPENDIX A. SECTIONS 821 AND 150 OF PUBLIC LAW 93-380 A-1
APPENDIX B. MAJOR RESEARCH PROJECTS B-1
APPENDIX C. TITLE I FUNDS ALLOCATION PROCESS C-1

LIST OF TABLES

Table		Page
II-1	Total Number of Public Elementary Schools, Number Served in 1975-76 and in 1976-77 and Percentage Increase Resulting from Policy Changes Initiated by 13 LEAs Participating in the NIE ESEA Title I Demonstration	II-26
II-2	Changes in Average Numbers of Public Elementary School Students Served by Schools Resulting from the Policy Changes Initiated by 13 LEAs Participating in the NIE ESEA Title I Demonstration	II-28
III-1	Title I Expenditures in School Districts Classified by Non-Federal Per-Pupil Expenditures	III-17
III-2	Title I Expenditures in School Districts Classified by Average Family Income	III-17
III-3	Title I Expenditures on Instruction in Districts to Nonpublic School Children	III-18
III-4	Services Provided by Title I Districts to Nonpublic School Children	III-19
III-5	Various Support Services Funded Wholly or in Part by Title I	III-21
III-6	Instructional Services Funded Wholly or in Part by Title I	III-21
III-7	Type and Number of CE Services Funded Wholly or in Part by Title I	III-22
III-8	Racial/Ethnic Composition	III-23
III-9	Compensatory Instruction Received by CE Students	III-27
III-10	Available Instructional Time Devoted to CE by CE Students	III-28
III-11	Racial/Ethnic Distribution of CE Teachers	III-29
III-12	Educational Background and Certification of CE Teachers	III-30

LIST OF TABLES (cont'd)

Table		Page
III-13	Compensatory Subjects Taught by CE Teachers	III-31
III-14	Title I Districts Offering Compensatory Instruction in Remedial Reading	III-34
III-15	Kinds of Instruction Missed by CE Students During Participation in CE Reading Programs	III-37
III-16	Types of Teachers From Which CE Students Receive Compensatory Instruction in Reading	III-37
III-17	Class Size in Compensatory Reading Programs	III-43
III-18	Dimensions Characterizing Individualization of Instruction in CE Reading Programs	III-45
III-19	Kinds of Instruction Missed by CE Students During Participation in Compensatory Language Arts/Communication Skills Programs	III-50
III-20	Types of Teachers From Which CE Students Receive Instruction in Language Arts/ Communication Skills	III-50
III-21	Class Size in Compensatory Language Arts Programs	III-53
III-22	Dimensions Characterizing Individualization of Instruction in CE Language Arts Programs	III-56
III-23	Kinds of Instruction Missed by CE Students During Participation in Compensatory Mathematics Programs	III-59
III-24	Types of Teachers From Which CE Students Receive Compensatory Instruction in Mathematics	III-57
III-25	Class Size in CE Mathematics Programs	III-60
III-26	Dimensions Characterizing Individualization of Instruction in CE Mathematics Programs	III-65
III-27	Selected Information About Compensatory Instruction in Remedial Reading, Language Arts and Mathematics	III-67

LIST OF FIGURES

Figure		Page
III-1	Percent of CE Students and Total Enrollment in Each Grade, K-8	III-24
III-2	Percent of CE Teachers Giving CE Instruction in Grades K-8	III-33
III-3	Percent of Students Receiving Compensatory Reading in Each Grade	III-35
III-4	Minutes Per Week Per Participant	III-40
III-5	Percent of Instructional Time Devoted to CE Instruction	III-41
III-6	Average Class Size for Compensatory Reading Instruction	III-42
III-7	Percent of CE Students Receiving Compensatory Language Arts Instruction in Each Grade	III-48
III-8	Minutes Per Week Per Participant in Compensatory Language Arts Instruction	III-51
III-9	Percent of Instructional Time Devoted to Compensatory Language Arts Instruction	III-52
III-10	Average Class Size for Compensatory Language Arts Instruction	III-54
III-11	Percent of CE Students Receiving Compensatory Math in Each Grade	III-58
III-12	Minutes Per Week Per Participant in Compensatory Math Instruction	III-61
III-13	Percent of Instructional Time Devoted to Compensatory Math Instruction	III-62
III-14	Average Class Size for Compensatory Math Instruction	III-64

PREFACE

The Compensatory Education Study on which this report is based was requested by Congress in the 1974 Elementary and Secondary Education Amendments. The 1974 Amendments emphasize the direct responsibility of the National Institute of Education (NIE) to the Congress. The study began in February of 1975 only after Congress had reviewed an official research plan submitted by NIE; it was funded with $15 million specially set aside from the Title I program appropriation. Results of the study will be reported directly to the President and to the Congress.

This direct responsibility to Congress led NIE to ensure that the study could be planned and integrated within the Institute. A special staff was established to conduct the study, and it was placed in NIE's Educational Equity Group. That staff has planned and closely managed the 35 research projects that make up the study and is responsible for writing this and subsequent reports.

The staff is organized into four teams--Student Development, Demonstrations, Administrative Studies, and Funds Allocation. Joy Frechtling manages Student Development, with Peirce Hammond, Marjorie Kulash, and Janet Taylor. Ann Milne manages Demonstrations, with Gilbert Hoffman, Martin Chong, and William Hulten. Donald Burnes manages Administrative Studies, with Christopher Wheeler and Abdin Noboa. Responsibilities for Funds Allocation are divided between Alison Wolf and Charles Troob; they have recently been joined by Joseph Wilkes. Margot Nyitray and James Harvey manage major research projects across several areas of the study and have had special responsibilities in the preparation of this report. Nyitray wrote Chapter III and Harvey served as report coordinator. Joyce Harris, Evangeline Ring, Katherine Blacknall, and Loretta Barnes provide clerical support for the staff.

The study's contractors and their projects are identified in Appendix B. The work of the contractors and of several other people outside NIE is reflected in this report. Of special importance are Edmund Gordon, the late Paul Lazarsfeld, James Murray, James Vanecko, Robert Silverstein, and Thomas Glennan. Chairman Owen Peagler of the National Advisory Council on the Education of Disadvantaged Children and the members and staff were generous with their time in advising on the execution of the study, as were a great number of educational agencies and associations at the Federal, State, and local levels. The staff of the U.S. Office of Education's Division for the Education of the Disadvantaged has been unfailingly open and helpful throughout the study.

Members of the NIE staff too numerous to mention have offered expert advice on research and helped select contractors. Special thanks are due Harold Hodgkinson, Emerson Elliott, Harold Delaney, and Marshall Smith for their suggestions and contributions to the study and this report.

Paul Hill, Director
NIE Compensatory Education Study

Iris Rotberg, Associate Director
NIE Compensatory Education Study

SUMMARY

The Education Amendments of 1974 (Public Law 93-380), the major education legislation considered in the 93d Congress, instructed the National Institute of Education (NIE) to conduct a study of compensatory education, including compensatory programs financed by States and those financed under authority of Title I of the Elementary and Secondary Education Act (ESEA). That title, the largest Federal education effort, provided $2 billion in 1976. Most of these funds were used to improve educational programs for low-achieving students in school districts serving children from low-income families.

Specifically, Section 821 instructed NIE to conduct a study of compensatory programs which would:

- Examine the fundamental purposes and effectiveness of compensatory education programs
- Analyze the ways of identifying children in greatest need of compensatory education
- Consider alternative ways of meeting these children's needs
- Consider the feasibility, costs, and consequences of alternative means of distributing Federal compensatory education funds

NIE's research is intended to help Congress during its deliberations on the future of Title I of the Elementary and Secondary Education Act. NIE is required to examine compensatory education, in general, and to provide Congress with specific recommendations about the range of possible objectives, funding methods, administrative techniques, and educational programs.

FIRST INTERIM REPORT OBJECTIVES

This interim report is the first of three requested by Congress. A second interim report is due in September 1977, and the final report will be presented in September 1973. This report has two objectives. The first is to provide Congress with a complete description of NIE's strategy in responding to the mandate. Therefore, the report provides a comprehensive account of what is being studied and what information will be provided in the second interim and final reports.

The second objective is to present new data from the NIE National Survey of Compensatory Education, a representative survey of Title I school districts. Because there were no available national data on the current delivery of compensatory education services when the study began, the Survey of Compensatory Education was one of the first projects commissioned by NIE. The survey was designed to provide information on the nature of compensatory services funded by Title I and State compensatory education programs and on the characteristics of students receiving these services.

RESEARCH STRATEGY

The provisions of Section 821 can be seen as including two major requests from Congress. The first requires NIE to assess the current effectiveness of compensatory education programs in meeting their fundamental purposes, and the second charges NIE with an examination of alternative methods by which the effectiveness of compensatory programs might be improved. This report describes how the Institute's research strategy combines these two requests. It also discusses (1) the fundamental purposes of compensatory education programs and (2) the manner in which the Institute is assessing the effectiveness of current programs and the consequences of possible changes.

To identify the fundamental purposes of compensatory education, NIE studied the provisions of Title I and its various amendments, accompanying House and Senate reports, and Congressional debates. Those sources indicated that Title I of the Elementary and Secondary Education Act had three fundamental purposes:

- To provide financial assistance to school districts in relation to their numbers of low-income children and, within those school districts, to schools with the greatest numbers of low-income students
- To fund special services for low-achieving children in the poorest schools
- To contribute to the cognitive, emotional, social, or physical development of participating students

NIE's strategy for assessing compensatory education programs begins with the recognition that the program has several purposes. It differs from the early national evaluations of Title I, which considered only the third fundamental purpose--contributing to children's development--and often rendered judgments on the efficacy of the program without accounting for the diverse ways in which Local Education Agencies (LEAs) had implemented it. The research is designed to provide clear information about what Title I is accomplishing toward achievement of each fundamental purpose and to examine the feasibility and effects of alternative ways of organizing Title I.

To obtain these kinds of information the Institute is conducting research on all aspects of the program. Studies cover the processes by which Title I allocates funds, delivers services, and helps students, and also include research on the ways in which Federal, State, and local administration determines what the program will be in practice.

The overall study consists of 35 research projects, organized into the four areas of funds allocation, compensatory services, student development, and administration. The major research questions addressed in each area are summarized below.

Funds Allocation

NIE's research examines the effects of current procedures for distributing compensatory funds and assesses the implications of alternative allocation methods. The research on current procedures will indicate how actual allocation patterns correspond to Title I's fundamental purpose of providing additional money to low-income districts and schools. It will also show how Title I grants affect both the overall distribution of educational expenditures among LEAs and the level of educational spending within LEAs.

The work on alternative funds allocation procedures examines two issues that were prominent in the 1974 Congressional debates: (1) possible changes in the definition of poverty to be used in the funding formula; and (2) a possible change from poverty to achievement as the eligibility criterion for allocating Title I funds. As part of the research on achievement criteria, NIE has implemented experimental projects in 13 school districts which will serve as demonstrations of the effects of changing from poverty to achievement criteria in the selection of eligible schools within districts. NIE is also examining the feasibility of allocating funds to States and districts based on achievement criteria.

Compensatory Services

The National Survey of Compensatory Education, referred to earlier, is the major data collection effort through which NIE is examining Title I's achievement of its second purpose, i.e., to provide special services to selected children. The first results of the survey are summarized in Chapter III. Results are reported on (1) the scope of compensatory education; (2) the range of services provided with the Title I funds; (3) the characteristics of the students receiving compensatory services; and (4) the characteristics of compensatory instruction.

Student Development

Research in this area addresses the third of Title I's fundamental purposes, i.e., to contribute to children's overall development. The research is designed to provide information on one of the most crucial questions in the area of student development, that of identifying which characteristics of compensatory instructional services are most likely to increase pupils' reading and mathematics achievement. The research also will examine the prevalence of these characteristics in current compensatory education programs and indicate how their adoption can be promoted by the way a Federal compensatory program is designed and administered. The studies focus on four features of instruction which appear to be especially important in determining children's learning; i.e., individualized instruction, instructional setting, time spent in instruction, and teacher training. The major research examining the relationship of these variables to student achievement is the Instructional Dimensions Study which includes 12,000 1st and 3d grade students in 440 classrooms.

Administration

Research in this area will provide information on the Federal, State, and local administration of Title I. Although improving educational administration is not one of the fundamental purposes of Title I, it is clearly a major factor in determining whether the program serves the intended purposes. NIE's research has three major objectives: (1) to describe the process by which administrators transform the provisions of the Title I statute and appropriations into educational services; (2) to identify, to the extent possible, the factors that affect the way in which the Title I program has been implemented; and (3) to determine whether and in what ways Congress may be able to influence local Title I services through efforts to modify administrative practices. Specifically, research projects focus on Federal administration; State and local administration; Parental Advisory Council (PAC) involvement with LEA decisionmaking; and administration in rural schools.

FINDINGS FROM THE NIE SURVEY OF COMPENSATORY EDUCATION

A national random sample of Title I school districts, which include some grades in the range from kindergarten through 8th grade, was selected for the NIE Survey. Data were obtained from interviews conducted during the 1975-76 school year with State and district administrators, school principals, regular classroom and compensatory education teachers, and PAC chairpersons. The figures reported represent national estimates based on the data from the sampled districts. Statements made about the characteristics of "compensatory education" students, teachers, or services refer to Title I- and/or State-funded compensatory programs. Where the information represents Title I only, it is so indicated. The remainder of this summary presents some of the survey's principal findings.

The Scope of Compensatory Education

During the 1975-76 school year, Title I represented 3% of total national expenditures for public elementary and secondary education; and State compensatory education programs, 1%. Of the Nation's school districts, 90% received Title I funds.

Compensatory programs involve many public school students and teachers. From the survey data, it is estimated that in Title I districts:

- An average of 90% of the schools classified by LEAs as eligible receive Title I funds.
- An average of 57% of the children classified by LEAs as eligible participate in Title I programs.
- Approximately 5.9 million public school students in grades K-8 receive Title I or State-funded compensatory education services. This is 19.5% of all public school children enrolled in those grades.
- An estimated 116,218 nonpublic school students or approximately 5% of the total enrollment in nonpublic schools receive Title I-funded compensatory services.
- Of all public elementary school teachers in 1975-76, an estimated 111,087, or 9.5% of the total, were involved for some portion of their time in providing compensatory education instruction.

- According to data from district applications, Title I funds paid the salaries of an estimated 8% of the elementary school teachers in these districts.

- Title I funds paid the salaries of an estimated 54% of all teachers' aides in Title I districts.

The Range of Services Provided With Title I Funds

The services provided with Title I funds are quite diverse and vary to some extent with the economic status of the school districts that receive them. From preliminary analyses, based on Title I applications, it appears that:

- The national average share of the Title I budget spent on instructional services is 76%. However, when districts are classified by economic status (average family income), lower income districts spend 20% less of their Title I budget than wealthier districts on instructional services.

- The national average share of the Title I instructional budget spent on reading is 53%.

- The national average share of the Title I instructional budget spent on mathematics is 19%.

- The national average share of the Title I instructional budget spent on language arts is 10%.

- The budgeted national average Title I expenditure per pupil participating in the program is $347. For instructional services, the budgeted national average Title I expenditure per participant is $263.[1]

Title I districts use these funds to finance a variety of instructional and support services. Some instructional services are provided by 98% of the districts. Some support services are offered by 59%, and a large percentage of Title I districts fund more than one compensatory service. From the survey, it is estimated that:

- 69% of Title I districts use Title I funds for reading.
- 45% of these districts use Title I funds for mathematics.
- 38% use Title I funds to support preschool/kindergarten readiness programs.
- 30% provide instruction in language arts.
- 28% provide resource centers, and 21% support libraries.
- 20% provide medical and dental services.

The Characteristics of Students Receiving Services

Students in Title I districts appear to be concentrated in grades 1-6, with similar proportions in each of these grades; very few are in junior or senior high school. There is a significantly higher concentration of minority group children among compensatory education students than in total enrollment in Title I districts. It is estimated that:

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[1] The amount actually spent per pupil may be somewhat less. Estimates of the number of students receiving services based on teacher counts suggest that the applications may underestimate the number of students served. In further analyses, the budget data will be corrected for any underestimates in the number of participants.

- 54% of compensatory education students are White, compared to 75% of total enrollment.

- 34% of compensatory education students are Black, compared to 19% of total enrollment.

- 10% of compensatory education students are Spanish surnamed, compared to 5% of total enrollment.

Not all of the compensatory education services mentioned above are delivered to all compensatory education students. It is estimated that the following proportion of compensatory education students receive compensatory instruction in the subjects listed below:

- 50% receive compensatory instruction in reading.

- 44% receive compensatory instruction in mathematics.

- 35% receive compensatory instruction in language arts.

- 14% receive compensatory instruction in social/cultural studies.

- 12% receive compensatory instruction in science.

- 5% receive compensatory instruction in special education/learning disabilities.

- 3% receive compensatory instruction in English as a second language.

The Characteristics of Compensatory Instruction

Many compensatory education students receive instruction in more than one subject matter area; the average amount of time spent in compensatory instruction is 5½ hours per week. This is an average of 25% of the total time available for learning.

Remedial reading, mathematics, and language arts are the three subjects most often provided to compensatory education students. The following features characterize compensatory instruction in these subjects. Based on the survey it is estimated that:

- 85% of the compensatory education students in reading, 66% of those in mathematics, and 63% of those in language arts programs receive this instruction outside their regular classrooms.
- The average size of the class in which compensatory education students receive compensatory instruction is 9 students for reading and 14 students for language arts and mathematics.
- The amount of time spent in compensatory education classes is approximately 4 hours per week for reading and language arts, and 3 hours per week for mathematics.

Further analyses of the data from the survey and interpretations of the findings will be presented in the second interim report.

CHAPTER I. BACKGROUND AND RESEARCH STRATEGY

REQUEST FOR THE STUDY

The Education Amendments of 1974 (Public Law 93-380), the major education legislation of the 93d Congress, extended and changed the Elementary and Secondary Education Act of 1965, and extended other Federal education programs including the Education of the Handicapped Act, and the Adult Education Act, as well as the impact aid, Indian education, and emergency school aid programs.

The law also directed various Federal agencies to conduct studies and surveys so that Congress might have the benefit of more up-to-date and accurate information during its future consideration of legislation to assist elementary and secondary education. Among these directives is Section 821 of the Education Amendments, which instructs the National Institute of Education (NIE) to conduct a study of compensatory education, including compensatory programs financed by States and those funded under authority of Title I of the Elementary and Secondary Education Act. In 1976, that title, the largest Federal education effort, provided $2 billion, most of which was used to improve educational programs for low-achieving students in school districts serving children from low-income families.[1]

Specifically, Section 821 instructs the Institute to conduct a study of compensatory programs, which includes:

(1) An examination of the fundamental purposes of such programs, and the effectiveness of such programs in attaining such purposes;

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[1] Public Law 93-380 also directed that: (1) the Assistant Secretary for Education study the accuracy of the measure of poverty used in the Title I formula; (2) the Secretaries of Health, Education, and Welfare (HEW), and Commerce, study the feasibility of updating counts of low-income children used in the formula; and (3) the Secretary of HEW report on the number of low-income children who participate in Title I projects and the number who do not, and the number of educationally disadvantaged children who participate and the number who do not. In addition, the Office of Planning, Budgeting, and Evaluation of the Office of Education (OE) is conducting a study of the "sustaining effects" of Title I programs--the degree to which achievement gains resulting from Title I remain over time.

(2) An analysis of means to identify accurately the children who have the greatest need for such programs, in keeping with the fundamental purposes thereof;

(3) An analysis of the effectiveness of methods and procedures for meeting the educational needs of children, including the use of individualized written educational plans for children, and programs for training the teachers of children;

(4) An exploration of alternative methods, including the use of procedures to assess educational disadvantage, for distributing funds under such programs to States, to State Educational Agencies, and to Local Educational Agencies, in an equitable and efficient manner, which will accurately reflect current conditions and insure that such funds reach the areas of greatest current need and are effectively used for such areas;

(5) Not more than 20 experimental programs, which shall be reasonably geographically representative, to be administered by the Institute, in cases where the Institute determines that such experimental programs are necessary to carry out the purposes of clauses (1) through (4), and the Commissioner of Education is authorized, notwithstanding any provision of Title I of the Elementary and Secondary Education Act of 1965, at the request of the Institute, to approve the use of grants which educational agencies are eligible to receive under such Title I (in cases where the agency eligible for such grant agrees to such use) in order to carry out such experimental programs.[2]

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[2] In addition, Section 150 of Public Law 93-380 states that:

"For any fiscal year not more than 20 local educational agencies selected for the purpose of Section 821(a)(5) of the Education Amendments of 1974 may elect, with the approval of the districtwide parent advisory council which is required to be established under Section 141(a)(14) of this title, to allocate funds received from payments under this title on the basis of a method or combination of methods other than the method provided under Section 141(a)(1)(A). Any method selected pursuant to this section shall be so designed and administered as to be free from racial or cultural discrimination."

(6) Findings and recommendations, including recommendations for changes in such Title I or for new legislation, with respect to the matters studied under clauses (1) through (5).

Section 821 also directs the Presidentially appointed National Advisory Council on the Education of Disadvantaged Children to advise the Institute on the design and execution of the study.

Finally, the law requires NIE to submit an interim report to the President and Congress not later than December 31, 1976, and to submit a final report by September 1977. Subsequently, the Education Amendments of 1976, Public Law 94-482, amended the requirements so that the report of September 1977 will be considered a second interim document to be followed by the final report in September 1978.

This volume is the first of the interim reports requested by Congress.

LEGISLATIVE HISTORY

A short discussion of why Congress requested NIE to conduct this study may be useful in understanding the research strategy.

Briefly, it appears that Members of Congress, specifically of the House Committee on Education and Labor, requested the study because they: (1) required information on which to base decisions about possible legislative changes in Title I; and (2) were dissatisfied with prior evaluations of Title I.

Several proposals for legislative changes were considered in the 93d Congress. Each would have substantially changed the nature of the Title I program. For example, Representative Albert Quie of Minnesota sponsored H.R. 5163, a bill which would have required that Title I allocations to States, Local Educational Agencies, and schools be based on the number of students achieving poorly on tests in reading and mathematics. Thus the number of low-achieving students, and not the number of low-income students, would have determined Title I allotments.

Another legislative proposal, the Better Schools Act of 1973 (H.R. 5823), introduced by Representative Alphonzo Bell, would have distributed Federal aid to education by means of a special revenue sharing program. This bill would have consolidated several Federal programs designed to help specific categories of students, including Title I and the Education of the Handicapped Act, into one grant. Each State receiving a grant would have had greater discretion in determining how to spend the funds than is possible under the categorical approach.

Finally, although Congress decided to continue allocating Title I funds on the basis of numbers of low-income children, the formula for counting such children appeared to need reconsideration. Title I allocations until 1974 were based on the numbers of children in families with annual incomes below $2,000 and in families receiving more than $2,000 in assistance under AFDC (Aid for Families with Dependent Children). A revision of the Title I formula seemed necessary because in 1973 the newly available 1970 Census data demonstrated a sharp decrease in the numbers of children in families with incomes below $2,000 annually. In addition, the number of children from families receiving payments over $2,000 annually under AFDC had increased quite dramatically since AFDC counts had been included in the Title I formula, heavily influencing the pattern of Title I allocations. However, the authorizing committees in both the Senate and the House of Representatives did not have adequate information on the likely consequences of enacting alternative formulas. The committees were unable, for example, to project accurately the effects of changing from a poverty- to an achievement-based formula on the allocation of Title I funds.

Prior evaluations of compensatory programs, and in particular of Title I, were another source of Congressional concern which led to the acceptance of Section 821; a key element of the Congressional dissatisfaction was that most prior evaluations of Title I based assessments of effectiveness only on the effects on student achievement and not on the achievements of the program as a whole. The charge to evaluate a national program is not satisfied by a study of the effects of some of its services. The House Report on the Education Amendments of 1974 stated:

> . . . there are few evaluation reports which show scientifically the success of Title I on a national level; but that failure is not so much a

> failure of the program as it is a failure to understand the nature of the program. . . .Title I provides direct aid to local school districts to use as they see fit to improve the education of educationally deprived children. Many school districts, in exercising this local decisionmaking, have felt that it is more important to use substantial amounts of money to meet health and nutritional needs of their students than to concentrate solely on remedial reading and mathematics. Therefore, to judge those programs according to the sole criterion of reading achievement is an invalid evaluation of their effectiveness.

These concerns about the need for improved data and more comprehensive examination of the Title I program have contributed to NIE's evaluation strategy.

THE REPORT

This is the first of the required interim reports to be submitted to Congress since the NIE study began.[3] The report has been written to provide a complete description of the Institute's strategy in response to Section 821 of the 1974 Education Amendments. As such, it is intended to be a clear and complete account of what is being studied and what information will be provided in the second interim and final reports. In addition, the report presents some new data from the NIE National Survey of Compensatory Education, which examined services offered under Title I and other compensatory education programs. The results of most other studies will be reported in September 1977; the remainder will be reported upon in September 1978.

RESEARCH STRATEGY

The provisions of Section 821 can be conceived of as two major requests from Congress. The first requires NIE to assess the effectiveness of compensatory education programs in meeting their fundamental purposes, and the second charges NIE with an examination of alternative methods by which the effectiveness of compensatory programs might be improved. This chapter describes how the Institute's research strategy combined these two requests and discusses: (1) the fundamental purposes of compensatory education programs; and (2) the manner in which the Institute proposes to assess the effectiveness of current programs and the consequences of possible changes.

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[3] An informal report describing the major contracts awarded at the time was submitted in August 1975. See Interim Report No. I: Compensatory Education Study. Washington, D.C., National Institute of Education, August 1975.

Fundamental Purposes

To examine the fundamental purposes of compensatory education programs, it is necessary to distinguish the broad philosophical concerns that may have motivated the program's originators from the more concrete operational purposes that are built into the program.

The originators of such compensatory education programs as Title I may have had in mind some very general purposes, including helping to eliminate poverty; contributing to the redistribution of wealth and opportunity; reforming education; and symbolizing society's commitment to helping the disadvantaged.[4] Although it is possible to speculate about what the basic objectives might be, the debates, statutes, and official legislative reports that established the program contain a specific set of fundamental purposes, which are discussed below.

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[4] Compensatory education includes a number of Federal and State programs in addition to ESEA Title I. This study reviews them, and later reports will have special sections devoted to State compensatory education programs. However, the relative size, and scope, and the long history of Title I mark it as the most important of the compensatory education programs. In order to ensure adequate depth and scope for the study, NIE chose to focus most attention on Title I.

Financial Assistance.--The Elementary and Secondary Education Act of 1965 (Public Law 89-10) was formally entitled "an Act to strengthen and improve *educational quality and educational opportunities* in the Nation's elementary and secondary schools."[5] It thus was a cornerstone of an emerging Federal interest in equality of educational opportunity. Enactment of the ESEA was the culmination of decades of conflict concerning whether the Federal Government should provide aid to elementary and secondary schools and whether students in private schools should benefit. The Act established the Federal interest in elementary and secondary education and clearly included private school students among its beneficiaries.

Section 101 of Title I of ESEA, entitled "Declaration of Policy," is a statement of the program's funding objectives. Section 101 states:

> In recognition of the special educational needs of children of low-income families, and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs, the Congress hereby declares it to be the policy of the United States to provide financial assistance. . .to local educational agencies serving areas with concentrations of children from low-income families. . . .

The 1965 House report accompanying this legislation referred to the view of the Committee on Education and Labor that "aid to the economically disadvantaged child represents the basic approach to widespread educational improvement in this country." Title I, the largest of the ESEA programs, therefore, was intended to be the principal Federal method for improving educational quality and educational opportunities for children in school districts serving areas with large numbers of low-income children.

The House of Representatives' report accompanying the 1974 Education Amendments reiterated that "a principal motivation. . .was the desire to distribute substantial Federal aid to school districts experiencing difficulty in funding adequate educational programs due to 'concentrations of low-income families'." The report also spoke of a "new national commitment to upgrading the education of the poor. . . ." However, it should be noted that the mandate for this study is itself evidence that Congress has considered reformulating its funding objectives to direct funds to LEAs and schools on the basis of the numbers of low-achieving students.

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[5] Emphasis added.

From the Declaration of Policy and subsequent formal Congressional statements emerges the first fundamental purpose of Title I of the Elementary and Secondary Education Act: To provide financial assistance to school districts in relation to their numbers of low-income children and within those districts to the schools with the greatest numbers of low-income students. Were the provision of this assistance the only purpose of Title I, evaluation would simply require an accounting of its effects on the distribution of funds. As the legislation makes clear, however, districts receiving Title I assistance are obligated to spend it in certain ways, and these requirements imply the existence of additional fundamental purposes for Title I.

Providing Educational Services.--The Declaration of Policy also states that local educational agencies are required to use Title I funds "to expand and improve their educational programs by various means. . .which contribute particularly to meeting the special educational needs of educationally deprived children." Although the Congressional originators of Title I may have differed about the degree to which school districts should be restricted in their use of funds, Congress clearly intended that funds be used for programs targeted on children with special needs. The exact nature of the services was left to the judgment of local educators.

Section 141 of Title I expands upon the general instruction cited in the Declaration of Policy and makes school district eligibility for Title I grants contingent upon assurances that funds would be used for programs: (1) designed to meet the "special educational needs of children in school attendance areas having high concentrations" of low-income children; and (2) of "sufficient size, scope, and quality to give reasonable promise of substantial progress toward meeting those needs." In addition, the same section requires assurances that Title I funding supplement rather than supplant non-Federal funding available for Title I students, and "to the extent practical, increase the level of funds that would be made available for the education of pupils participating" if Federal funds were not available.

Based on the consistent and recurring intent of Congress from 1965 to 1974, the second fundamental purpose of Title I is: To fund special services for low-achieving children in the poorest schools.

Student Development.--Congress did not mandate the exact nature of the services to be delivered under Title I, nor did it precisely define educationally disadvantaged children.[6] However, it appears clear that Congress was concerned with the connection between poverty and low achievement and hoped that the provision of Title I services in areas with concentrations of poverty might help improve the school performance of children in poor areas.

The 1965 House report accompanying ESEA spoke of the "close relationship between conditions of poverty. . .and poor academic performance." Moreover, members of the House Committee on Education and Labor commented in 1974 that compared to the funds allocation purposes of Title I, "the educational results that are achieved once this aid reaches school districts," are the "more important and more frequently discussed facet of the program." Nevertheless, the Committee stressed that Title I is not solely a program to enhance basic skills in reading and mathematics.

In the Senate, the Committee on Labor and Public Welfare commented upon the same subject in discussing why the Committee rejected a proposal to concentrate 75% of Title I funds on reading and mathematics. The 1974 Senate report noted:

> . . .local officials are charged with developing local solutions to meet their specific needs. Often the solutions involve remedial education programs in the basic skills. But many local officials have found that their children's educational progress also depends on provision of

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[6] The Education Amendments of 1974 amended Section 417 of Title I to require an annual report from the Secretary of HEW on: (1) the number of low-income children who participate in Title I projects and the number who do not, and (2) the number of educationally disadvantaged children who participate and the number who do not. Solely for the purpose of that report, Congress defined educationally disadvantaged as "children who are achieving one or more years behind the achievement expected at the appropriate grade level for such children."

> auxiliary services such as guidance and counseling programs or cultural enrichment. Title I is not basically a social services program; however, such social services are necessary if education is to take place.

Perhaps the most useful, brief summary of the uses of Title I funds found acceptable by Congress can be found in the same Senate report. It said: "In appropriate circumstances, Title I funds may even be used for auxiliary services, such as food, medical or dental services, and clothing, but the emphasis is on education."

Thus, the third fundamental purpose established in Congressional intent is: To contribute to the cognitive, emotional, social, or physical development of participating students. These three fundamental purposes of Title I are consistent with one another, but each is not equally important to all Members of Congress. Congressional debates, and even the language of different parts of committee and conference reports, suggest that Members of Congress differ over the relative importance of the respective purposes. Although some Congressional statements imply that the purposes form a hierarchy in which Title I delivers funds and services only to increase children's academic achievement (thus making the third fundamental purpose the most important), other statements make it clear that the allocation of funds and delivery of services are important ends in themselves.

STRATEGY FOR ASSESSING COMPENSATORY EDUCATION

The evaluation of Title I must start from the recognition that the program has several purposes, and to focus exclusively on one improperly ignores the others. Evaluation must also acknowledge that Title I operates through the Federal system, and that State and local governments determine what it will be in practice by delivering the services their own students need. Although there is only one Federal Title I program, i.e., only one basic framework of laws and policies, it operates differently in every State, in 14,000 school districts, and in countless classrooms. Thus, to understand and evaluate Title I it is necessary to consider the ways in which Federal policy interacts with the actions of States and local educational agencies that actually implement the program.

The early national evaluations of Title I considered only the third fundamental purpose--contributing to children's development--and often rendered judgments on the efficacy of the program without accounting for the diverse ways in which LEAs had implemented it. Those evaluations overlooked some important truths about Title I: it has several objectives, and under it LEAs deliver a range of services with a variety of aims and emphases to a diverse set of beneficiaries. In contrast to earlier evaluations, therefore, NIE's strategy is designed to (1) provide clear information about what Title I is accomplishing toward achievement of each fundamental purpose and (2) examine the implications of alternative ways of organizing the efforts of the Federal, State, and local governments to achieve these purposes.

The first kind of information reflects what the program has accomplished to date and helps readers understand how the program operates so they can judge whether the program's achievements are limited by intractable technical realities, by political factors outside the control of the Federal Government, or by problems that can be overcome through changes in resources or techniques. From the second kind of information, Members of Congress can determine which types of changes in resources and techniques would be useful in improving the program. Together, these two kinds of information support judgments about the program's effectiveness and are essential for decisions about changing and improving compensatory education in the future.

To obtain this information, NIE is conducting a strategy of research intended to produce a complete understanding of how the program operates. The related investigations cover the processes by which Title I allocates funds, delivers services, and helps students; they also include research on the ways in which Federal, State, and local administrations determine what the program will be in actual practice.

The NIE research strategy for this study consists of 35 research projects organized into the four areas of funds allocation, service delivery, student development, and administration. The individual research projects are described in Appendix B. Chapters II, III, IV, and V explain the major questions being addressed in each area and the kind of information to be provided at the end of the study.

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CHAPTER II. FUNDS ALLOCATION

This chapter describes research on the ways in which the existing system for allocating compensatory education funds serves Title I's first fundamental purpose--providing money for districts and schools serving low-income children. It also describes research on possible alternative allocation methods which were prominent in Congressional debates about Title I in 1974. Following a brief outline of the current funds allocation system, three principal research areas are discussed.

- A discussion of research on the funding patterns created by the current allocation system. This discussion concerns the way in which Title I funding is related to the demographic and locational characteristics of counties, LEAs, and schools. The research also examines the ways in which Title I grants affect both the overall distribution of educational expenditures among LEAs and the level of educational spending within LEAs.
- A discussion of research on the effects of possible changes in the definition of poverty on the allocation of Title I funds.
- A discussion of research on the effects of changing the Title I eligibility criterion from poverty to achievement. The section includes a report on the demonstration projects which NIE is operating in 13 school districts under the "experimental programs" authority granted by Sections 821 and 150.

REVIEW OF CURRENT FUNDS ALLOCATION SYSTEM

At present, Title I funds are distributed using an allocation system which involves a number of calculations and types of data. The following section briefly reviews the process through which funds are allocated to school districts, and then to schools and students within these districts. In addition, a more detailed description of this process is presented in Appendix C.

Procedures for Allocating Funds to School Districts

Title I, which in fiscal year 1977 will provide over $2 billion for elementary and secondary education, provides for grants to LEAs and to SEAs. The title has two sections: Part A, funded at $2.05 billion in fiscal year 1977, which provides grants to LEAs, to State agency educational programs, and to the Bureau of Indian Affairs; and Part B, funded at $24.7 million, which provides grants to States with "high effort," and under which the States choose LEAs in which to fund special projects. (High-effort States are those in which the ratio of non-Federal expenditures on education to personal income is high.)

NIE's research focuses upon the allocation of Part A grants to LEAs. These grants account for 83.1% of total Title I expenditures.

An LEA's allocation under Part A is determined by formula. For each school-age child from a low-income family, the LEA is entitled to a Federal grant worth 40% of the average per-pupil expenditure in that State. An LEA's entitlement, therefore, is computed by multiplying the number of formula-eligible children by the cost factor of 40% of the State's average per-pupil expenditure. However, the baseline from which the cost factor is estimated cannot exceed 120% and cannot fall below 80% of the national average per-pupil expenditure. Because the appropriations for Title I fall short of the level of authorization, LEAs do not receive full entitlements of 40%, but only about 16% of the State expenditure for each eligible child.

There are several categories of eligible children. For the sake of clarity, eligible children were referred to earlier as school-age children from low-income families. To be more precise, those eligible for counting in determining LEA grants include the following:

- Children aged 5 to 17, inclusive, from families below the Orshansky poverty level (a set of 124 poverty lines, each appropriate to a different family type)[1]

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[1] The Federal poverty definition, named for its developer Mollie Orshansky, sets poverty-level incomes by estimating the costs of adequate diets for different sizes and types of families, and the typical costs of other goods and services. It was incorporated into the Title I formula in 1974. A more complete discussion is found in Appendix C.

- Two-thirds of the children aged 5 to 17 from families receiving payments under AFDC which total more than the current poverty level for a nonfarm family of four

- Children aged 5 to 17 being supported in foster homes with public funds or living in institutions for neglected or delinquent children, which depend on the Local Education Agency for educational services

The income and AFDC data required for the formula are readily available for the entire Nation only to the county level. As a result, the U.S. Office of Education applies the mandated formula only to this level, and it delegates to the States the responsibility for allocating county grants to LEAs, in cases where LEAs are not coterminous with counties. These subcounty allocations, which affect most LEAs, must be based on counts of low-income children, and States are required to use procedures and data approved by the Commissioner of Education.

Procedures for Allocating Funds Within School Districts

LEAs have considerable control over the Title I funds allotted to them. Although their use of money is governed by a number of Federal and State regulations and guidelines, these rules leave the LEAs latitude concerning which schools and pupils to select for Title I programs and how to distribute the federally funded resources among these schools and pupils.

The regulations have two major objectives: (1) to ensure that Title I services go to schools in the poorest areas and serve the lowest achieving students in them; and (2) to ensure that services paid for with Title I funds are additional to those that all students in the district receive or would receive in the absence of Title I.

In selecting the recipients of Title I services, LEAs are expected to make the following decisions:

- Identify eligible schools from among the schools in the district by using a poverty criterion

- Select target schools (that is, decide which of the eligible schools will, in fact, receive Title I services) and distribute services among the schools

- Identify eligible students in target schools by using an educational achievement criterion

- Target students in greatest need of assistance

These decisions are discussed in greater detail in Appendix C.

EFFECTS OF CURRENT PROCEDURES FOR ALLOCATING FUNDS TO LEAs

The first part of the research on funds allocation concerns the effects of the Title I funding procedures described above on the actual allocations of compensatory funds received by different States, counties, school districts, and schools. This research has two major objectives:

- To describe how Title I funds are divided among different categories of school districts

- To describe the relationships between Title I and other educational expenditures

Distribution of Title I Funds Among Categories of States, Counties, and School Districts

The primary concern of this section is the degree to which Title I is now fulfilling its first fundamental purpose--to provide financial assistance to school districts serving low-income students and, within these districts, to schools serving the largest numbers of children from low-income families. The research therefore explores the relationship between the incidence of poverty in a school district and the size of its Title I grant. It also investigates whether social and demographic characteristics other than poverty are related to the sizes of grants.

In addition to basic information on numbers of eligible children and the actual size of Title I grants, NIE has assembled data that enable researchers to categorize jurisdictions according to a number of indices, such as population size, school enrollment, racial/ethnic composition, family income, region, and urban-rural and metropolitan-nonmetropolitan status.

These data can provide a full picture of the allocation pattern created by the current Title I system of formulas and procedures. For example, NIE will determine what percentage of Title I funds goes to central city school districts. The Institute also will compare these figures to the percentage of the Nation's school children enrolled in these districts and to the percentage of all poor children who live in these districts. Similar analyses will be performed for each of the other demographic indicators.

In addition to describing the overall distribution of Title I funds, the study will examine the effects of the cost factor, the reduction procedure, and different definitions of eligible children on this distribution.

These studies will be conducted using a computer simulation system and several extensive data files which are being specially constructed. The Census Bureau has prepared retabulations of the 1970 Census by county and by school district. The resulting files include counts of persons, families, and children in poverty, using a variety of poverty measures. For each county and district, counts are also available by ethnicity (numbers of White, Black, and Spanish-surname) and by location (e.g., central city, suburban, and rural). These tapes will be merged with a file based on the 1975-76 Title I allocations to each district.

The computerized system to be used was originally constructed for the Congressional Research Service (CRS) and was used by CRS to calculate the distributional effects of Title I funding formulas proposed for the 1974 ESEA Amendments. It has been extended to perform a much wider range of analyses and simulations and in addition to calculating the allocations resulting from various formulas, it can now perform comparisons of different proposals and relate the allocation results to the demographic characteristics of school districts. The CRS will receive the improved system from NIE and can use it to answer requests which go beyond the scope of the NIE Study.

The elements of the Federal formula for allocating Title I funds do not fully control distribution of such funds. As the summary of funding procedures has indicated, States have some discretion in allocating funds to the large number of LEAs that are not perfectly coterminous with counties. For this reason, a study of subcounty allocation is being conducted to provide information on the procedures and data used by States for this purpose. For those States in which subcounty allocation procedures are significantly different from the Title I formula, the study can approximate the differences between the amount of money received by various types of LEAs under the current process and the amount that would be received if the formula were applied directly. It will also contrast the advantages and disadvantages of the flexibility created by the current, mixed Federal-State system that allows States to select data and update counts. Finally, the study will assess the feasibility and desirability of several different approaches to subcounty allocation.

The study has already provided information on the procedures and data used by States to allocate funds to LEAs. The majority of States use formulas that parallel the one used by USOE to allocate funds to counties. More than half the remaining States use formulas that attempt to overcome the age of the 1970 Census data by emphasizing total counts of AFDC children.

In addition, the study shows that, although more than two-thirds of the States use Census data, fewer than half of those States use school district Census data compiled by the USOE. Instead, States use their own matching of school districts with Census areas. Other practices were identified in several States which affect the subcounty allocation process, including such practices as (1) reallocating "unused" funds, (2) redistributing funds among counties, and (3) altering the "hold-harmless" procedures mandated in the Federal regulations.

Relationships Between Title I and Other Federal and State Grant Programs

A second research objective is to understand the role of Title I in the general system of public school finance. As stated in Chapter I, Federal compensatory education funds from the start have been intended to help determine how education resources are distributed among the Nation's children and to increase the level of educational resources available to children attending schools in low-income areas.

When assessing the impact of the current Title I allocation system, it therefore is important to consider its effects on the overall distribution of educational expenditures and on the level of resources being devoted to education in districts receiving grants. Title I's grants to LEAs currently represent only around 3% of all public expenditures on elementary and secondary education in the United States. However, the money is not evenly distributed, and Title I has a more significant impact in many districts than the 3% figure suggests. Work in this area addresses two questions, discussed below.

Title I Effects on the Distribution of Educational Expenditures.--Title I allocations can be related to both general patterns of Federal aid to education and to school districts' overall levels of per-pupil expenditure. In the context of Federal funding, it is important to examine to what extent Title I and other Federal programs are consistent in the ways they reallocate resources among districts. To understand Title I's place in the overall system of school finance, it is necessary to compare Title I's funding patterns with those established by State aid programs and local resources.

As a part of Federal aid to education, Title I provides approximately 34% of Federal funds and is the largest single Federal program. The Federal Government also provides substantial amounts of money for schools under the "impact aid" provisions of School Assistance in Federally Affected Areas (SAFA) and through such programs as vocational education, which allow States greater discretion in allocating funds to school districts.

Pilot studies of Federal funding patterns conducted with 1967 data suggest that within States, the districts with lower incomes and lower per-pupil expenditures tended to receive relatively more Federal aid (Berke and Kelly, 1971; Berke and Kirst, 1972). However, this overall distribution was largely the result of Title I allocations, which were greater for cities and rural areas. The allocation of discretionary funds showed a highly variable pattern, and, in some States, favored the wealthier districts.

More recent analyses of national data show that in the early 1970's, Title I funds continued to be concentrated in districts with low income and, in the South, went to those districts which also had low tax bases (Ginsburg, 1975). In addition, Federal funds over which States had more discretion were allocated in a way similar to Title I. Cities received considerably more Federal money per pupil than did suburban and rural areas, and the latter also fared better than the suburbs in allocations from a number of these programs (Ginsburg, 1975). Finally, although some SAFA payments went to wealthier areas, the bulk of payments under SAFA went to low-income districts and districts with low tax bases.

Overall, Federal aid was heavily directed to districts with median incomes in the lower third of the national distribution. In urbanized States, it increased the resources of cities relative to other areas, while in the South and West, rural districts benefited. Finally, poorer States and districts also tended to receive more Federal aid, though this pattern was not totally consistent (Berke, 1975).

The Census Bureau and NCES have recently produced new data on districts' fiscal resources, including funding from Federal and State sources, and actual expenditures on education. In collaboration with HEW's Office of the Assistant Secretary for Planning and Evaluation, NIE will use the data to examine how far Title I currently has affected the redistribution of educational resources among different types of districts, and how far it and other Federal aid compare with and alter the funding patterns created at the State level. The focus is on whether funds are redistributed in favor of districts which can be considered poor in terms of their median income, numbers of poor children, tax bases, or expenditures per pupil.

These analyses will provide information on the impact of Federal aid as of 1975 and on the extent that patterns of Federal aid and the role of Title I have changed during the 1970's. Data on trends in the overall distribution of State and local funds and their relationship to Title I allocation are less easily obtained. During the 1960's, State aid apparently failed to have any substantial equalizing effect (Berke and Kirst, 1972), but since that period there have been major school finance reform measures in a number of States, and patterns of State aid have altered substantially. The analyses conducted as part of the compensatory education study as well as detailed studies of school finance reform being conducted concurrently in a separate NIE unit will contribute to an increased understanding of trends in the overall distribution of educational resources and of how far they appear to reinforce or alter any redistributive impact of Title I.

Impact of Title I Spending on Total Educational Spending by LEAs.--In establishing Title I, Congress intended that there should be an increase in the real level of educational spending in recipient districts. It did not intend that the funds should serve merely as a form of tax relief, allowing LEAs to cut back on local spending. Therefore, Title I regulations include a "maintenance of effort" provision whereby LEAs must maintain their previous levels of expenditure.

Although these provisions make it impossible for an LEA simply to replace local funds with Title I money, a district receiving funds from an outside source may raise less additional money from local sources than would otherwise have been the case. During a period of inflation, when additional local funds are needed simply to maintain a given level of expenditure, Title I funds may be used to replace additional local taxes that would otherwise have to be raised.

In light of these possibilities, a study was initiated to determine the degree to which Title I has succeeded in raising levels of educational expenditures. Although the analyses are incomplete, it appears that Title I funds have been effective in raising expenditures on education. Approximately two-thirds of Title I funds are spent on truly additional educational services that would not have been purchased in the absence of these funds. Compared to noncategorical State grants programs, Title I funds have been more effective in increasing total expenditures, and far less likely to be used to support tax relief.

Within-District Allocation

The distribution of Title I resources within districts is the final stage of the Title I funds allocation process. The research will produce information about the relationship between the amounts of funds allocated to schools, and their poverty levels and other demographic characteristics. In that respect, the analyses of within-district allocation will resemble those discussed above for allocation to districts.

The potential importance of these analyses can be seen from a review of how LEAs select schools and students for Title I. Preliminary results from the National Survey of Compensatory Education indicate that school districts fully use the latitude given them by the Title I regulations to employ diverse measures as criteria for allocating funds.

According to the survey results, Title I districts are using a wide variety of measures of poverty (e.g., Census counts and AFDC counts) in determining school eligibility for Title I, and over 67% of districts use more than one source of information for this purpose. Over 30% of districts use more than one measure without combining them in a specific formula.

The next step in the within-district allocation process is the choice of schools from among those eligible to receive Title I funds. The survey information, however, indicates that districts frequently do not separate the two processes. Of the schools which districts have defined as eligible, an average 90% actually receive funds. Indeed, 81.4% of the Title I districts report serving all eligible schools.

Once schools are selected, the population of students in need of compensatory education is identified. The survey shows that most districts use a combination of standardized achievement tests and teacher judgment to determine which students need compensatory services. As district testing programs are usually focused on one or two grades, and compensatory programs may be offered at other levels, it is not surprising that teacher judgment of students' achievement is so frequently used, along with the more formal assessment of educational problems via test scores.

The final step in the within-district allocation process is the selection of students[2] to receive services from among those judged to need compensatory education. This choice is usually based on standardized achievement tests in combination with teacher judgments of students' educational problems. One common practice among districts which use standardized test scores is to serve only those students who are at least 1 year below grade level. The result of this process is that an average 57% of the students in target schools judged by their LEAs to be in need of Title I services actually receive them. Only 18.5% of the Title I districts serve all of the students whom they have judged in need in Title I target schools.

These results attest to the wide variability in data and procedures used by districts to select schools and students for Title I services. Further reports will analyze how far such differences in allocation procedures create distinctive patterns of funds allocation, and will also provide information on the characteristics of the schools selected under different procedures.

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[2] The characteristics of students receiving services are described in Chapter III.

ALTERNATIVE MEASURES OF POVERTY

Dissatisfaction with the existing pattern of funds allocation was a major reason for the 1974 changes in the Title I formula. The most important of these changes was the adoption of the current "Orshansky" method of identifying poor families from Census figures.

Previously, a single-family income of $2,000 a year had been used to define poor families for program purposes, and the children living in such families were counted in order to determine the size of Title I grants. By adopting the Orshansky index, which distinguishes different types and sizes of family, and is regularly updated, Congress both refined the definition of poverty in use and brought about substantial shifts in the pattern of funds allocation.

The adequacy of counts based on the Orshansky poverty index continues to be questioned. For this reason, the Education Amendments of 1974 mandated three studies related to a poverty-based allocation formula. One is a study of methods of updating poverty counts, currently being conducted by the Secretaries of Commerce and Health, Education, and Welfare. A second closely related study is the Survey of Income and Education, which will produce accurate counts of children in poverty in 1975 for each State. The third is a study of Measures of Poverty, supervised by the Assistant Secretary of Education. The report (HEW, 1976) from this study was submitted in April 1976. NIE's research will draw on all three studies and supplement their findings.

Updating Poverty Counts

In determining how many poor children live in a State or county, Federal administrators are forced to rely heavily on out-of-date information. Family income data for States and counties are available nationally only from the decennial Census. This means that although the Orshansky index itself can be updated, the counts of children in poor families, as defined by that index, are updated only very rarely. At present, the numbers used refer to children who were poor at the time of the 1970 Census, and these data may be as much as 13 years old when the new Census counts are available. This problem will persist until the 5-year Censuses, planned for the 1980's, are taken. Between Censuses, population movements or changes in the economy may leave one area with many more poor children than Title I eligibility counts suggest, and another with many fewer.

By contrast, AFDC counts are collected annually on the basis of an updated eligibility figure, and States may use more current data for subcounty allocation. Nonetheless, the Census count of poor children largely determines any district's allocation; hence, reliance on outdated figures may have a substantial impact on the distribution of funds. The Updating Study is examining ways of estimating changes in areas' low-income population over time, using data from sources other than the Census, including the Survey of Income and Education.

Definition of Poverty.--The definition of poverty determines the method for counting poor people in the country or in a particular jurisdiction. For programs in which beneficiaries' rights to service depend on their poverty status, the definition of poverty clearly determines who will be served. The Title I program uses counts of poor people in LEAs to allocate funds, but it does not identify individual beneficiaries according to their poverty status.

Most of the discussion of how poverty should be defined for Federal program purposes originates in the concern that truly needy individuals may lose services because the existing measures do not recognize them as poor. The poverty status of students does not determine their selection to receive Title I services. But a change in poverty measures can materially affect Title I, if it increases the counts of poor people in some LEAs relative to those in others. In that case, the definition of poverty can affect the funds available to different LEAs. If a particular poverty measure changes the distribution of Title I funds, then that measure's distributional consequences are of great importance to Title I.

Studies are underway on a number of alternatives for measuring poverty. These derive from the work of the Poverty Studies Task Force, which conducted the congressionally mandated study of Measures of Poverty, and also from recent work by Orshansky. NIE's analysis will identify a limited number of measures that would have different distributional consequences if adopted for Title I.

The NIE study will first examine a set of variations in the Orshansky poverty matrix which have the effect of shifting the current poverty definition up and down. Like the current matrix, each of these new definitions provides a set of 124 "cutoffs" or poverty lines for different family types. Second, it will examine several variants of the Orshansky definition; although they use the same general standard of poverty, these variants reduce the number of family categories and employ different data and methods for updating the poverty income level. Two measures, based on more recent definitions of, and data about, the cost of adequate diets will be studied. Finally, the analysis will include two definitions that differ substantially from the current definition: one uses a single cutoff for all families, and one uses the Orshansky cutoffs but applies them to "pretransfer" income (income excluding transfer payments like AFDC and public assistance).

In selecting these measures, NIE has adopted the assumption made by the Poverty Study Task Force that poverty definitions can be incorporated into the Title I funding system only if comparable data are available for all jurisdictions potentially able to receive funds. For this reason, the Task Force concluded that Census data must remain the source of counts of poor children. Other data sources could be used to adjust and update Census data, but no other source could produce the basic counts needed for funds allocation.

This means that at present the poverty definition is limited for formula purposes to one based on the money income of families. Such changes in the poverty definition as the inclusion of "in-kind" income (e.g., food stamps, Medicaid) are not possible with Census-based data, and the alternative definitions of poverty being studied are all based on Census income categories.

Analyses of Alternative Poverty Measures.--The purpose of the work on alternative poverty measures is to determine the degree to which they have differential effects on the allocation of Title I funds. NIE's work builds directly on the results of the mandated poverty studies. It will analyze the effects of several proposed poverty definitions on the allocations of funds to States, counties, and LEAs. Those analyses will extend to the county and district levels the analysis that was performed at the State level for the "Measures of Poverty" study. Thus, they will provide detailed information on the types of LEAs that would gain or lose under different definitions of poverty. In addition, they can incorporate possible changes in weighting and reduction procedures, hold-harmless, and cost factors. The Interim Report of September 1977 will discuss several such analyses, and the entire simulation model employed in the research will be available to the Congressional Research Service so that they can conduct further analyses at the request of Congress.

ALLOCATION OF FUNDS BASED ON ACHIEVEMENT SCORES

Of the changes currently proposed for the allocation of Federal compensatory education funds, a shift from poverty measures to achievement scores is potentially the most far-reaching. Prior to the passage of the Education Amendments of 1974, there was intensive discussion of the desirability and consequences of allocating funds to States, districts, and schools on the basis of their numbers of low-achieving students. Although no such procedure was adopted, the Congressional mandate for this study instructs the Institute to explore alternative methods for allocating compensatory education funds.

The remainder of this chapter examines the issues involved in such a change and outlines the pertinent research, including the experimental programs underway in 13 school districts. However, the choice between allocation using achievement scores and allocation using poverty counts cannot be made on the basis of research results alone. It depends ultimately on a political choice about the characteristics of places and persons who are to benefit from funds the program provides. NIE's research can illuminate the practical consequences of a change in methods of funds allocation, but it cannot determine which method is "best" in a philosophical or an ethical sense.

To advocates of achievement-based funding, the appropriate way to distribute education funds is on the basis of children's educational performance. Since the ultimate aim of compensatory education is, they argue, to increase children's achievement, the best formula for distributing funds must be one which targets money directly to the children whose academic performance is low. Supporters of achievement-based funding regard poverty measures as proxies for low achievement; hence they argue that these measures do not efficiently identify low-achieving children. They favor using numbers of low-achieving children to distribute Title I funds, instead of numbers of children in poverty.

This view contrasts with the opinions of others who favor the use of a poverty criterion. They do not see poverty measures solely as proxies for a measure of low achievement, nor do they believe that using poverty as the Title I eligibility criterion must be justified in terms of its ability to identify the States, districts, or schools which contain most low-achieving pupils. Some advocates of a poverty-based allocation formula believe that the major role of a compensatory education program is to channel additional resources into areas where children are poor. Others believe that the purpose of compensatory education programs is to help low achievers, but they argue that the low-achieving pupils in poor areas must be given priority.

Though the philosophical differences between these two points of view are clear, the practical consequences of the choice between poverty and achievement may be less dramatic. A change in eligibility criteria will make a difference in Title I only if it produces a different distribution of funds. Although the individual level correlation between poverty and achievement is far from perfect, the correlation between the numbers of poor and low-achieving children in a State, LEA, or school could be high, even if the individual level correlation were low. A school, district, or State could have high numbers of poor and of low-achieving students, even if very few students were both poor and low achieving. At the present time, the degree of overlap between counts of poor and of low-achieving students at the levels of States, districts, and schools is not known.

The purpose of NIE's research on achievement scores is to explore the practical consequences of the choice between poverty and achievement as criteria for allocating Title I funds. One part of the research focuses on the degree to which a change to an achievement criterion would, in fact, affect the distribution of Title I funds among States and LEAs. Another part of the research concerns the availability of the kinds of data needed to support an achievement-based funding system.[3] A third part of the research explores the effects of adopting the achievement criterion on the operation of Title I within school districts--on the identification of students to be served and the services received by students.

Because the technical problems of allocation of funds to States and districts are different from those of within-district allocation, the research on achievement-based funding is divided into two parts: (1) allocation to States and school districts, and (2) allocation within school districts.

Allocation to States and Districts

NIE's work in this area comprises three efforts: (1) obtaining comparable achievement data for as many States and their constituent school districts as possible, for estimating the distribution of low-achieving pupils among States and districts; (2) estimating the patterns of funds allocation which would result from a change to achievement-based funding; (3) assessing the costs and feasibility of several strategies for obtaining data to permit a change to achievement-based funding to States and school districts. All three efforts are now underway and will produce results in time for the September 1977 report.

Under the first effort, all States were surveyed and all potentially usable data collected. Both State aggregate and district-by-district achievement data were obtained where available. Because the States and districts use a variety of achievement tests--and administer them to different samples of pupils at different times in the academic year--the data files obtained from the States generally are not comparable with one another. The various files have now been adjusted using the Anchor Test tables (procedures for equating results of different tests) and similar techniques developed especially for this study.

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[3] The availability of data raises different problems for allocation to States and districts from those for within-district allocation. Nearly all school districts collect some achievement data and could use it now for their internal allocation of Title I funds. However, different school districts often collect diverse kinds of achievement data, with the result that the State is unable to obtain complete and comparable data across districts; neither do all States collect sufficient State aggregate achievement data to provide the Federal Government with comparable data across States.

Though some of the State and district achievement score files may prove impossible to equate with others, it appears that statewide achievement data should be available for more than half the States, and district-by-district data for about one-third of the States. The equating process and the resulting files of State and district achievement data will be complete in early 1977.

The second effort will depend on the computer simulation system described above. The statewide and district-by-district achievement files will be merged with the poverty data, previously discussed under "Alternative Measures of Poverty." The simulation model can then compare patterns of Title I eligibility and funding under achievement-based funding with the results of several poverty-based Title I funding systems, including the one now in force.

Under the third effort, five alternatives are being examined:

- A national norm or criterion-referenced testing program that would provide completely standard student achievement data for every school district
- A simpler national testing program which would produce national and statewide achievement figures (possibly from a very short "screening" test or other device reducing the test burden on students and teachers) with sub-State allocations relying on separate (e.g., State-run) testing programs
- A national data base obtained by collecting, equating, and standardizing diverse State testing programs
- Combinations of the above, which may use one data base for funds allocations among States and others for sub-State allocations
- The use of poverty or other Census-based data to allocate funds among States, and the use of the respective States' achievement testing programs to allocate funds to their constituent school districts

These alternatives are being evaluated according to their cost, accuracy, freedom from bias, and public acceptability, by a national panel of experts in the field of achievement testing.

Intra-District Allocation

The question of alternatives to current intra-district allocation procedures is addressed by the Demonstration Studies. The mandate offered an opportunity to study changes in intra-district allocation in action. The wording and history of Sections 821 (a) (5) and 150 indicate that Congress intended these studies to be "working models" of types of allocation changes which had been proposed during deliberations on the Education Amendments of 1974. Through these demonstrations being conducted by 13 school districts across the country, NIE will gather information of practical use to Congress in considering changes in the process of intra-district funds allocation. The research will provide information about the effects of new ways of allocating Title I funds on the kinds of schools and students served under alternative allocation strategies, the numbers of students served, the instructional services they receive, the programs and delivery systems developed by school districts, the extra costs (or efficiencies) associated with different allocation patterns, and community support for the Title I program.

In designing the study to respond to these concerns, NIE focused on two major policy options. Specifically, districts were asked to consider changes in:

- School eligibility criteria--districts were asked to elect either alternative poverty criteria for school eligibility, or a criterion based on achievement rather than poverty.
- Concentration--districts were asked to consider serving more or fewer schools, and more or fewer students within schools.

To observe the effects of those changes, NIE designed a 3-year study in the demonstration districts. Under the design, districts continued to operate Title I programs using standard allocation procedures in the 1975-76 school year, while planning the specific details of the changes they would make. During that year pre-change data on all outcome measures were collected, against which effects of the demonstrations would be measured. During school years 1976-77 and 1977-78, the demonstration districts are operating under the new allocation procedures, and data on the same measures are being collected.

Research Issues.--The major objective of the demonstration study is to examine the impact of the districts' changed allocation policies on a number of outcome measures. The primary research questions are as follows:

- What effects do changes in Title I allocation policy have on the organization and administration of compensatory programs and the instructional services delivered within the demonstration districts?

- What effects do changes in Title I allocation policy have on the instructional and support services experienced by students of different types within the demonstration districts?

- What effects do changes in Title I allocation policy have on the composition (preservice achievement level, economic status, ethnicity, etc.) of the schools and students served by Title I within the demonstration districts?

- What effect does achievement-based allocation have on teaching and testing practices within the schools? Is there any evidence of negative incentives created by a school's awareness that success in raising students' achievement levels could decrease the school's funding in following years?

- What are the administrative costs and/or savings associated with changes in Title I allocation policy? What costs are nonrecurring, such as costs associated with planning; and what costs are recurring, such as costs associated with testing?

- What is the reaction of the community (especially parents) to changes in Title I allocation policy within the demonstration districts?

- What effects do changes in allocation policy have on the achievement of selected students within the demonstration districts? (This outcome variable will be explored for a subsample of districts depending upon the availability of adequate data for such an analysis.)

The data bearing on the overall operation of Title I programs in each district are collected by self-administered questionnaire from principals of all schools and from a sample of teachers and instructional specialists, and by interviews with a sample of parents and members of the Parent Advisory Council (PAC). In addition, data are collected from documents and from informal interviews with district administrators.

A sample of approximately 4,000 students was selected so that their homeroom teachers and instructional specialists could describe the instructional and support services received by these students.[4] The homeroom teachers and instructional specialists of these sample children report in detail on their instructional practices with these children in both regular and compensatory instruction. In addition, on two different days during the year, each sample student's educational experiences are described by the teacher at 10-minute intervals for the entire day--the subject being taught, group size, location, the status of the instructor (teacher, aide, peer, etc.), and whether the instruction is regular or compensatory.

District Selection.--To invite school districts to make changes in their allocation procedures, NIE sent an RFP (request for proposals) to all States and territories, asking that they request proposals for change from their districts and forward up to two to NIE. The RFP explained that LEAs selected for the demonstration projects could receive waivers from some of the existing requirements for initial district allocation of Title I funds, primarily those dealing with school eligibility and concentration. The RFP also offered some financial support for administrative and planning costs but established that the size of participating districts' Title I grants would not be affected.

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[4] This student sample is drawn randomly each year from all 3d and 4th grade classrooms (one Title I and one non-Title I student per class, where possible) in sample schools. Schools are sampled in up to four school types in each district, based on the presence or absence of Title I programs in the baseline (1975-76) and implementation (1976-77 and 1977-78) years.

Districts were interested in participation in the demonstration study because it gave them an opportunity to implement new funds allocation procedures. The options offered in the RFP were also of interest to a number of districts that have recently undergone desegregation. Many of these demonstration districts (as well as others that applied and were not selected) listed desegregation as their reason for wishing to participate, referring to perceived difficulties in reconciling Title I regulations with their desegregation plans or orders. The current regulations operate on the premise that poor students are unevenly distributed across the district, and establish a procedure for finding and serving schools with high concentrations of low-income children. If minority students are more likely than nonminorities to be poor, higher numbers of minority students will be found in concentrated poverty areas, and thus in the schools in those areas. However, under desegregation these students will be more evenly dispersed across the district schools, and thus deprived of services as the schools they attend become "nonpoor." In recent years Title I has attempted to take this into account by procedures such as no-wide-variance and school eligibility by school enrollment rather than by attendance area (described in Appendix C). However, it is clear that many of the demonstration study applicants find even these regulations restrictive, and as part of their proposals devised approaches of their own for finding and serving needy students.

States and territories forwarded more than 20 district proposals to NIE, and NIE selected 16 for the planning year (1975-76). At the end of that year NIE selected 13 districts (three districts had withdrawn from the study)[5] to implement the planned changes during 1976-77. The 13 districts are:

Adams County, Colorado	Mesa, Arizona

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[5] The three districts that withdrew are Freeport, New York; Oklahoma City, Oklahoma; and Wichita, Kansas.

Alum Rock,
California

Berkeley County,
West Virginia

Boston,
Massachusetts

Charlotte/Mecklenburg,
North Carolina

Harrison County,
West Virginia

Houston,
Texas

Newport,
Rhode Island

Racine,
Wisconsin

Santa Fe,
New Mexico

Winston-Salem/Forsyth,
North Carolina

Yonkers,
New York

Due to the selection process and to the elective nature of district participation, this sample of districts is neither random nor nationally representative. However, a comparison of the demographic characteristics of the 13 districts with those sampled for the National Survey of Compensatory Education revealed few differences.

The most popular alternative allocation procedure selected by the demonstration districts was allocation by achievement measures rather than by poverty, and most districts elected to serve more schools and/or more students than previously. The major reason offered was a desire to serve low-achieving students directly regardless of their attendance area or the school in which they are enrolled. The nature of the changes in allocation--the independent variables--being studied in the 13 districts is described in some detail below.

Funds Allocation Changes.--The major changes elected by the demonstration districts are changes in eligibility and changes in distribution of resources. Eligibility criteria determine which schools and which students *may* be served. Distribution decisions determine how many, and which, schools and students will be served and how resources will be allocated among them. Within the demonstration districts, decisions about eligibility and distribution of resources were not made independently of one another; thus the demonstration-related deliberate changes made in some aspects of the intra-district allocation process have necessary consequences for other aspects.

School eligibility: The major change being demonstrated in these districts is a change in criteria for school eligibility. During 1975-76, under standard Title I regulations, all of the demonstration districts used poverty criteria to qualify schools. During 1976-77, 11 of the 13 districts have changed to achievement criteria in some form (two districts continue to use poverty criteria exclusively). The districts are using four procedures for determining eligibility.

(1) Serving low-achieving children regardless of schools attended

Seven districts are serving all low-achieving children (variously defined by different districts) regardless of the school they attend. Therefore, the school is essentially bypassed in determining eligibility, and all schools within a given grade span are eligible for, and receive, services. Title I services are not removed from any schools in the served grade span, but some schools are receiving reduced services compared with 1975-76. Other schools are receiving services for the first time. Districts using this approach are:

Adams County, Colorado (elementary grades 1-3)

Alum Rock, California (elementary and middle schools)

Harrison County, West Virginia (elementary schools)

Mesa, Arizona (elementary, junior high, high schools)

Newport, Rhode Island (elementary schools)

Racine, Wisconsin (elementary schools)

Santa Fe, New Mexico (elementary schools)

(2) Ranking schools by achievement

Two districts are ranking schools on the basis of achievement, and all schools below a specified cutoff are eligible. As a result, some schools which were previously served under poverty are not receiving any Title I services this year, while other schools are receiving services for the first time. These districts are:

Charlotte, North Carolina (all elementary schools with 35% or more of the students performing below the 30th percentile)

Winston-Salem, North Carolina (all elementary schools with 40% or more of the students performing below the 35th percentile)

(3) Ranking schools by achievement with poverty-held-harmless

Two districts are ranking schools by achievement, and new schools are selected this year based on their achievement rank. However, schools previously served under poverty continue to be served. These districts are:

Boston, Massachusetts (all grade levels)

Houston, Texas (elementary schools)

(4) Ranking schools by poverty

Two districts are continuing to use poverty criteria to identify eligible schools. These districts are:

Berkeley County, West Virginia (elementary schools)

Yonkers, New York (elementary schools)

Student eligibility: During 1975-76 the demonstration districts, like other districts in the country, used achievement criteria to qualify students as eligible to receive Title I services, and generally gave priority to the lowest achieving eligible children. This year 10 of the districts continue to follow the same general procedure; the remaining 3 districts are using new student eligibility procedures. In Alum Rock and Yonkers, all students in certain Title I schools, rather than only the lowest achieving students, are eligible to receive services. These districts are interested in determining whether low-achieving children can be served adequately by programs which individualize instruction for all students in the class rather than by providing a special program which singles out only the lowest achieving children. The third district, Newport, has redefined "educational need" to include an estimate of the student's learning potential. Students with the highest discrepancy between potential and achievement (and with achievement below the 50th percentile) receive services first.

Distribution of resources to schools: The eligibility changes described above have resulted in changes in per-school expenditures. All districts are serving more schools in 1976-77 than were served in 1975-76; this is particularly true in the seven districts which are providing services in all schools within given grade spans. Table II-I presents the increase in percentage of total elementary schools served in each of the districts. (The overall change may be more or less for districts continuing to serve other grades.)

The increase in number of schools served generally results in decreased per-school expenditures.[6] However, this decrease is not constant across all schools within most districts. Because in 1975-76 many of these districts allocated resources to

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[6] Some districts have lessened the impact of increased numbers of schools served in one grade span by removing services from schools in other grade spans--e.g., from middle and secondary schools.

TABLE II-I

TOTAL NUMBER OF PUBLIC ELEMENTARY SCHOOLS, NUMBER SERVED IN 1975-76 AND 1976-77, AND PERCENTAGE INCREASE RESULTING FROM POLICY CHANGES INITIATED BY 13 LEAs PARTICIPATING IN NIE ESEA TITLE I DEMONSTRATION

LEAs Grouped by School Eligibility Policy Option		1975-76		1976-77		Change
Policy Option	LEA	Total Number Elementaries	Number Served by Title I	Total Number Elementaries	Number Served by Title I	Increase In Percentage of Schools Served
Serving all elementaries:	Adams County	16	3	16	16	81
	Alum Rock	19	9	18*	18	53
	Harrison County	30	25	30	30	17
	Mesa	25	14	25	25	44
	Newport	9	3	9	9	67
	Santa Fe	16	11	16	16	31
	Racine	33	14	33**	29	46
Ranking by achievement:	Charlotte	73	49	73	57	11
	Winston-Salem	37	13	37	24	30
Ranking by achievement plus poverty:	Boston	117	65	110*	74	11
	Houston	169	54	169	63	5
Ranking by poverty:	Berkeley County	13	10	14*	11	2
	Yonkers	31	9	25*	9	7

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*Changes in total number of elementary schools should be noted. These are due to school closings or openings.

**Of the 33 eligible schools, 4 are being served with State compensatory monies rather than Title I monies, but in a manner similar to Title I. In addition, current plans call for serving all schools in the district with Title I monies in 1976-77 when State funds are not available.

schools based on the number or percentage of low-income children in each school, resources per low-achieving student were apparently unequal across schools. This year, in keeping with their desire to serve low-achieving students directly, 12 of the 13 districts are allocating resources to schools based on numbers of low-achieving students in each school. The accuracy of this distribution varies by district, but has the general effect of equalizing resources per low-achieving student across schools within the district.

Distribution of resources to students: In some districts, the increase in number of schools served is matched by an increase in the number of students receiving services, so that approximately the same number of students per school will be served. This has the effect of essentially maintaining the previous achievement level cutoff for students entering the program, but results in lower per-pupil expenditures. Other districts have decided not to decrease the per-pupil expenditure substantially, but rather to serve fewer pupils per school. This has some interesting logical consequences. Since most districts are attempting to serve the lowest achieving children first, serving fewer children per school may have the effect of lowering the average pre-service achievement level of the students served. By the same logic, if there is a strong correlation between low achievement and poverty, the students served may be poorer than those previously served. Whether these effects occur will depend upon the correlation of poverty and achievement, the distribution of low-achieving students across the district, and the ability of the district to identify the lowest achieving students.

Table II-2 describes the probable changes in numbers of public elementary students served in each of the demonstration districts. It should be noted that numbers served in 1975-76 are based on end-of-year figures of actual students served as given by district administrators, while numbers to be served in 1976-77 are projected estimates given by the same administrators. Actual changes in numbers served in 1976-77 will not be known until the end of this school year.

One other point should be made here. The final per-pupil expenditure in each of these districts is as much a function of the size of the Title I grant to the district as it is of district decisions about allocation within the district. As has been noted, the grant size to the district is not affected by participation in the demonstration

TABLE II-2

CHANGES IN AVERAGE NUMBERS OF PUBLIC ELEMENTARY SCHOOL STUDENTS SERVED BY SCHOOLS RESULTING FROM THE POLICY CHANGES INITIATED BY 13 LEAs PARTICIPATING IN THE NIE ESEA TITLE I DEMONSTRATION

LEAs Grouped by School Eligibility Policy Option		1975-76			1976-77			
Policy Option	LEA	Number Elementary Students Served	Number Elementary Schools Served	Average Number Students Served by School	Number Elementary Students Served	Number Elementary Schools Served	Average Number Students Served by School	Change In Average Number Students Served by School
Serving all elementaries:								
	Adams County	174	5	34.80	591	16	36.94	+2.14
	Alum Rock	3,581	9	397.88	5,006	18	278.11	-119.77
	Harrison County	1,129	25	45.16	2,128	30	70.93	+25.77
	Mesa	2,494*	14	178.14	1,532*	25	61.28	-116.86
	Newport	175	3	58.33	445	9	49.44	-8.89
	Santa Fe	735	11	66.82	1,285	16	80.31	+13.49
	Racine	500	14	35.71	1,290	29	44.83	+9.12
Ranking by achievement:								
	Charlotte	6,440*	49	131.42	6,827*	57	119.77	-11.65
	Winston-Salem	1,927	13	148.23	3,310	24	137.92	-10.31
Ranking by achievement plus poverty:								
	Boston	10,130	66	153.48	9,378	74	126.73	-26.75
	Houston	19,518	54	361.44	23,197	63	368.21	+6.77
Ranking by poverty:								
	Berkeley County	630	10	63.00	1,210	11	110.00	+47.00
	Yonkers	2,502*	9	278.00	4,044	9	449.33	+171.33

*Duplicated count.

study; that grant size continues to be based on poverty criteria. However, these 13 districts begin with varying amounts of resources to distribute; their grants are not equally proportional to the number of poor students in the district. This is apparently the result of variability in allocation to these districts created by the formula used to allocate funds to the county level (differing importance of AFDC, differing State cost factors), by formulas used by States to allocate to the subcounty level, and by other sources of State discretion such as reallocation of unexpended Title I funds.

Thus, these districts may make similar concentration decisions--may, for example, decide to serve the same proportion of their low-achieving children--and yet may wind up with widely differing per-served-pupil expenditures.

In summary, the demonstration districts have elected changes in eligibility criteria and in resource distribution which will have effects on a wide variety of outcome measures. Analyzing these measures will allow description of the probable effects of alternative intra-district allocation procedures. The results of these analyses will be presented in subsequent reports.

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CHAPTER III. EFFECTS ON SERVICES

This chapter has three main objectives: first, to describe how NIE formulated its research on compensatory services; second, to describe the method adopted--a survey of public school districts--to implement this research; and third, to present in considerable detail the descriptive information now available from that survey about the current operation of compensatory programs by local public school districts.

COMPENSATORY EDUCATION SERVICES

One of the basic purposes of compensatory education is to provide improved services to children with special educational needs. Under Title I, the Federal Government does not deliver services directly; it does so through the actions of LEAs. Individual LEAs assume a major responsibility for the quality of Title I services, and it is apparent that Title I cannot help children unless it provides special services reasonably related to their needs.

In examining the services provided with compensatory funds, several questions must be considered.

- What kinds of services do school districts provide with compensatory education funds?
- Who are the actual recipients and how are they selected?
- What are the characteristics of the instructional services provided?
- Are the services sufficient to have a reasonable chance of accomplishing their goals?

Services Provided With Compensatory Education Funds

The first question relates to what services local school districts provide with compensatory education funds. Reliable information has not been available in this area because school districts traditionally have not been accustomed to organizing financial reports in terms of specific educational services. Nevertheless, districts make important decisions about how to distribute compensatory funds among different programs, including programs intended to improve reading and math achievement, enhance cultural awareness, and improve students' health.

Information on the uses of compensatory funds in these areas is essential to an understanding of what Title I is in practice, and useful to policymakers interested in a comparison of Title I funding for instructional and noninstructional services. In addition, it is important to examine how a district's distribution of funds is related to other characteristics such as its size, location, and relative economic status.

Recipients of Compensatory Education Services

The second question relates to the specific recipients of compensatory education services and to how they are selected. Evaluators need to know the criteria currently being used to select schools and students for compensatory services and to understand how these selection procedures vary with other characteristics of the school districts. The distributional consequences of these procedures in terms of the numbers and characteristics of the schools and students served with compensatory resources can then be assessed.

Title I was intended to provide extra resources to schools serving areas with high concentrations of poor children and to low-achieving children within these schools. Thus, it is important to know the extent to which these schools and students are, in fact, being served. NIE's research was designed to answer these questions, and will also provide information on the size, grade level, and racial/ethnic composition of the student population served.

In addition, the research will indicate the extent to which nonpublic school students receive Title I services. Title I funds have always been intended to reach eligible pupils in nonpublic as well as public schools; however, in practice it is difficult for public school districts to deliver compensatory services to nonpublic school children. Districts may be eager to minimize the amount of funds leaving the public system; they may also have problems identifying Title I-eligible students in private schools and organizing special programs for them. Hence, the research will determine the number of districts serving nonpublic school students and the kinds of services provided to these children.

The Characteristics of Instructional Services

A third question relates to the characteristics of instructional services provided to compensatory education students. Information on this question is important because the location of compensatory instruction and the techniques used in delivering this instruction may enhance or impede the delivery of these services to the target children.

Location.--Title I has always required that a district's funds be used for special programs for Title I students. One way to establish these programs is to provide the compensatory instruction outside the regular classroom. While school districts are not required to operate such pullout programs, this practice may make it simpler to ensure that Title I children are, in fact, receiving special services.

The implementation of pullout programs for compensatory education students is likely to have practical consequences that may or may not be desirable.[1] On the one hand, providing the compensatory instruction in a separate classroom may make it easier to tailor the instruction to the problems of low-achieving students and allow more time for the teacher to attend to the needs of individual students. It may allow the use of teachers who specialize in a particular subject to give the instruction. In addition, class sizes may be smaller in the special classrooms.

On the other hand, since the schoolday consists of a fixed number of hours, the requirement for serving only target children, combined with the need to provide extra services, presumably creates a dilemma for local administrators. The use of pullout programs could increase the likelihood that compensatory education students would miss some portion of their regular instruction. It could also lead schools to track Title I students for their regular as well as their supplemental instruction in order to facilitate scheduling. In addition, some earlier compensatory education survey data (Glass, 1970) indicate that this practice could promote de facto segregation in Title I schools.

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[1] Chapter IV discusses the available research on the educational consequences of ability grouping.

It is important, therefore, to describe the current prevalence of pullout programs. It is also useful to know whether the pullout practice is related to the type or intensity of compensatory instruction; whether certain groups of students are more likely to receive services outside the regular classroom; and whether this practice affects scheduling and the regular instruction these students receive.

A related issue is the extent to which regular and compensatory instruction are coordinated. Presumably, compensatory instruction should complement, rather than conflict with, regular course work. Providing compensatory instruction in a separate classroom may make coordination more difficult. Thus, the research will indicate the extent to which coordination actually takes place, the most common methods of coordination, and whether the amount of coordination is related to the type of compensatory instruction and its location.

Instructional Techniques.--Information on instructional techniques is significant for two reasons. First, the use of certain techniques such as instruction in small groups, tutoring, or practices associated with individualized instruction may help to ensure that attention is focused on the needs of the individual student receiving compensatory education and that the instruction is appropriate to those needs. Second, previous research has identified some program characteristics that appear to be related to gains in student achievement.[2] Thus, it is important to indicate how prevalent these characteristics are in current compensatory programs and to determine whether other variables, such as the amount of resources available, affect a district's choice of instructional techniques.

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[2] This research is described in Chapter IV.

Sufficiency of Compensatory Services

The fourth question is whether the services are sufficient to have a reasonable chance of accomplishing their goals. Title I has various provisions that attempt to limit the ways that school districts use Title I funds. These "concentration" provisions include the requirement that Title I funds be used for programs of ". . . sufficient size, scope, and quality so as to give reasonable promise of substantial progress toward meeting the needs of educationally deprived children."

One assumption behind these requirements is that a certain minimum amount of money per school or per student is necessary to develop a coherent program. Spreading the Title I funds to all eligible schools and students presumably would make this impossible. Many previous studies on concentration attempted to measure directly the relationship between per-pupil expenditure and achievement, without taking into account the kinds of services the dollars buy. Since money may be spent on many things, it is not surprising that these studies were unable to demonstrate that higher per-pupil expenditures resulted in achievement gains.[3] NIE therefore formulated its research in terms of the amount of compensatory resources and services currently available in Title I districts.

The sufficiency of services being delivered may be assessed in several ways. First, it is possible to measure the duration and intensity of the compensatory instruction by examining the amount of time spent in such instruction and the average size of compensatory education classes. (It is also useful to know whether length of time and class size are related to other aspects of service delivery, including the type of instructional staff and the location of instruction.) Second, NIE will compare the staff resources in Title I and non-Title I schools and indicate whether there are differences in the number and type of instructional staff available. Third, the research will determine (1) the distribution of Title I per-pupil expenditures; (2) the relationship between Title I and regular expenditures per pupil; and (3) the ratio of "eligible" to "served" schools and students in Title I districts. These data will make it possible to examine whether increased concentration of funds means lower pupil/staff ratios, higher salaried staff, more instructional time, or a greater variety of services delivered.

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[3] For example, an AIR study (Tallmadge, 1973) on concentration which used California State Department of Education data about Title I project expenditures and the reading and math achievement of Title I participants asked whether there was a "critical mass" of compensatory education expenditures necessary for achievement gains. The results on the relationship between expenditures and achievement were inconclusive, partly because the range of concentration on which the analysis was based was relatively narrow, and also because the study did not analyze the characteristics of the compensatory services the children received.

The Compensatory Education Study is also examining the concentration issue from other perspectives. For example, many of the Demonstration Districts (discussed in Chapter II) chose to reduce concentration--that is, to serve more schools and/or students. The research on those districts will provide information on how a decrease in concentration affects the nature and quantity of services received by individual students. The Instructional Dimensions Study, described in Chapter IV, is examining the costs of different instructional techniques and their relationship to achievement outcomes.

DESCRIBING COMPENSATORY EDUCATION SERVICES

The first part of this discussion reviews data available when NIE began the study, and the reasons they did not provide an adequate description of compensatory services. The second part describes the design of the survey NIE sponsored to provide this information.

The Lack of Information on Compensatory Services

Given the multiple purposes of the original Title I legislation and Congressional intent that Title I services be examined and evaluated, it was surprising and disappointing to discover that accurate descriptions of compensatory education services, which could answer some of the questions posed above, were not available. When the NIE Compensatory Education Study was initiated, there were no current, nationally representative data on the participants, the services offered to them, or the costs associated with compensatory education projects and programs. In the past there were two basic sources of national information about Title I participants and services: the State annual reports required in the ESEA statute, and a series of annual surveys intended as Title I evaluations. The Title I legislation included a requirement for a three-tiered reporting system. Each local school district was to assemble data on its Title I programs and submit a report to its State department of education. The SEAs in turn were to compile the information into a statewide report which the U.S. Office of Education would use to prepare a report to Congress on the national picture. There are, however, serious problems in using State reports to describe Title I nationally.

An early review of these State reports (Wargo, 1972) revealed that the inadequacy of the information contained in the annual reports precluded their being used as sources of "nationally representative" data on participants and services. Reporting formats varied so much among States that, for example, in reporting the characteristics of the population served by compensatory funds, only 14 States provided data uniform enough to be aggregated. Even a national estimate of the number of participants is difficult to obtain from these reports because some States counted students each time they received a particular service--thus inflating the estimated total of participants, since some students receive multiple services. Cost information also was not sufficiently standardized to permit aggregation because the reports frequently did not indicate whether the information was based on actual expenditures, planned expenditures, or allocations.[4] Finally, the nature of services delivered is described in these reports only in the most general terms--reading versus mathematics instruction, for example; no report is made of the instructional techniques used or the location of the instructional programs. A more recent study (Gamel, 1975), which reviewed State reports through 1975, found little improvement in the quality of information they provided. Therefore, the State reports could not be used as the basis for NIE's research on compensatory services delivered by school districts.

The other source of descriptive information on Title I services is a series of evaluation studies implemented separately from, and necessitated in part by the problems in, the State reports. These studies, which vary considerably in the extent to which they purport to provide a national description of Title I services, include assessments by independent groups; early national evaluations; and some more recent, narrowly focused evaluation studies.

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[4] In fact, in any one year up to one-third of the States did not report cost information at all.

Assessments by Independent Groups.--One of the earliest evaluations of Title I was Title I of ESEA: Is It Helping Poor Children? (Martin, 1969), written by the Children's Defense Fund and the National Association for the Advancement of Colored People. It had considerable impact on the formulation of regulations for Title I service delivery. Unlike many of the larger scale evaluations of Title I conducted by the Office of Education, the study was designed not to measure achievement score outcomes but to describe the services delivered to Title I children. The report was highly critical of the Title I program as it existed in its first 4 years. The authors found that the funds were not reaching the majority of eligible children, that services were not concentrated on the children most in need, that funds were spent on equipment and materials rather than on educational services, and that parents were not sufficiently involved in the programs in which their children participated. Largely as a result of this study, regulations on how Title I funds could be spent were strengthened in an attempt to ensure that compensatory funds reached the intended target group and that they were truly supplementary. It should be noted that while this study made some attempt to look at school districts in different parts of the country, it was not a nationally representative sample. Instead, it involved informal visits to 28 school districts, many of which came to the attention of the NAACP because of complaints about their use of Title I funds. How far the study results were indeed representative of services delivered in the Nation's approximately 16,000 Title I school districts is not known.

Early National Evaluations.--For a national picture of compensatory education services prior to 1976, one must turn to the Compensatory Education Surveys funded by the Office of Education. The national surveys, conducted annually from 1968 to 1971, were developed to identify the impact on student achievement of all Title I services; documenting the characteristics of services per se was not an objective. Two problems arose as a consequence of this focus on measuring the relationship between Title I and student achievement at the national level. First, in order to provide summary measures of the effects of Title I on achievement, the variability in delivery of services had to be ignored. Second, the request for achievement data confronted the reluctance or inability of school districts to provide it. Usable achievement data were obtained for less than 10% of the sample. Because of this lack of achievement data, the surveys were viewed as failures by the sponsors. As a result, the analysis of the first survey was not reported until 1970, the 1969 survey analysis was never released, the 1970 results consist of 1,200 tables which were never interpreted, and the 1971 data were never analyzed at all.[5]

In 1969, the Belmont program, a joint Federal/State reporting, management, and evaluation system, was established. In addition to the national surveys described above, which were incorporated into Belmont, the system also included the Consolidated Program Information Report (CPIR), intended to provide national data on a series of Federal education programs, including Title I. To reduce the burden on school districts, this form collects only minimal information on participants, services, and expenditures for any one program. These data have similar problems to data included in State reports. The most recent information published by the National Center for Educational Statistics (NCES), which now operates Belmont, is for the 1972-73 school year.

Focused Evaluations.--Because these early efforts failed to provide national data on the effects of Title I services on student achievement, recent studies have taken a more selective approach. From the point of view of measuring the effects of compensatory education on students, it is undoubtedly appropriate to collect information only on programs *intended* to have an impact on achievement outcomes, but this practice limits the usefulness of the findings of these studies as a description of the general characteristics of Title I services, since not all the programs are instructional. A case in point is the recently completed study of Title I reading programs conducted by the Educational Testing Service (OE, 1976). The data, collected in 1973-74, reflect Title I reading services only; since other services were not surveyed, the study did not produce a representative description of the national use of Title I funds. The only other recent study (General Accounting Office, 1975) also focuses on reading programs; it makes no claim that its findings are typical of all Title I programs, or even of all reading programs, as only 15 school districts were studied.

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[5] While the information in the analysis of the 1969 survey could not provide a current description of compensatory services, where information comparable to that which NIE collected exists, an attempt will be made to compare the results and to delineate trends.

Design of the NIE National Survey of Compensatory Education

One of the first projects commissioned by the NIE Compensatory Education Study was a national survey, which collected information on Title I and State compensatory education services delivered by school districts. The survey was designed to describe the services delivered under the rubric of compensatory education, what the recipients of these services are like and how they are selected, and how the services are planned, delivered, and evaluated by the school districts receiving compensatory education funds.

One of the important aspects of the survey design is the sampling strategy that was employed. The population to be sampled was defined as all operating public school districts in the continental United States which received Title I funds, and which had at least one grade in the range K-8. The population was defined as Title I districts rather than Title I schools because it was important to be able to characterize the key local policymaking unit (school districts) to which the Title I funds are directed. The districts were stratified on the three dimensions of enrollment size, regional location, and receipt of State compensatory education funding. Three enrollment or size categories were established with cutting points at the 33.3 and 66.6 percentiles of number of students: Category 1--lowest third, enrollment less than 4,359; Category 2--middle third, enrollment from 4,359 through 17,628; and Category 3--highest third, enrollment above 17,628. For regional location, four categories based on Census Bureau definitions were used: Northeast, South, North Central, and West. The two categories under State compensatory education funding for the district were (1) presence of State compensatory education funds and (2) absence of State compensatory funds.

These three stratifiers were selected so that the research could examine whether the characteristics of compensatory services in Title I districts vary according to the district's enrollment, its location, or its receipt of State compensatory education funds. Because a number of States also fund their own State compensatory programs, the third dimension allows the study to describe the services provided with these funds.[6] More importantly, the study can examine whether, in

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[6] States with such programs include California, Connecticut, Georgia, Hawaii, Maryland, Michigan, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Texas, Utah, Washington, and Wisconsin.

Title I districts, Title I and State compensatory education funds are used for separate programs or are pooled to provide a single set of compensatory services.

The sample selection strategy was designed to ensure ability to make estimates from the data on both a per-district and a per-pupil basis. The sample was thus selected to ensure approximately equal reliability for both types of estimates.[7] One hundred school districts were selected on this basis, after which individuals to be interviewed within those districts were selected. Within districts, the most important decision was the strategy for sampling teachers.

Teachers in compensatory education schools were selected in two ways. First, lists were compiled of all teachers who had responsibility for taking attendance and who had at least one compensatory education student in the classroom. This procedure helped provide accurate estimates of the number and characteristics of compensatory education students. Because the survey was designed to provide information on State programs as well as on Title I, these students included those receiving services funded by Title I and/or by State compensatory education funds. A sample of these homeroom teachers was then selected. In this way, duplicate counting of pupils was avoided, because no two teachers in the homeroom sample could report on the same pupil when asked about the number of compensatory education students.

Second, lists were compiled of all teachers who provide Title I- and/or State-funded compensatory instruction. The teachers providing this special instruction may or may not also have been homeroom teachers. The sample of these teachers permits accurate description of the characteristics of the instructional services delivered to compensatory education students.

Two other features of the survey should be noted, since both also differentiate the NIE Survey from the earlier national surveys. First, because NIE was interested in information on services as actually implemented and not just intentions or plans, and because it is unlikely that any one individual could provide in-depth information on all aspects of compensatory education services, the information was collected from a number of different persons within each of the sample districts: district administrators, principals, and Parent Advisory Council chairpersons, as well as teachers--over 5,000 individuals in all. While some public records and documents on compensatory education services and participants were collected, most of the data were gathered through face-to-face interviews ranging in duration from 30 minutes to 2½ hours.[8]

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[7] In technical terms, the probabilities of selection of districts for the sample were chosen as a compromise between the extremes of equal probability and probabilities proportional to size. A more complete technical description of the sampling procedures will be attached as an appendix to the second interim report.

Second, to supplement the basic survey, a series of case studies in 18 of the sample districts will provide more detailed descriptive information on the supportive services provided and on how students are selected to receive these services. The case studies will also explore districts' rationales for using compensatory funds in this way, and the extent to which the provision of such services has declined.

PRELIMINARY SURVEY FINDINGS

At this point in the course of the NIE Study, preliminary findings from the survey can be presented. This information consists primarily of descriptive national estimates of some compensatory education services delivered by Title I districts, and as such does not completely reflect the diversity of services within individual districts.

The following survey data were collected during the 1975-76 school year. Unless otherwise indicated, the figures represent national estimates based on those data. In addition, as a consequence of the survey design, statements made about compensatory education students, teachers, and services reflect the characteristics of programs supported both by Title I and/or State compensatory education funds. Data which reflect only Title I are identified. Further analysis of the survey data will allow a determination of the extent to which Title I districts that also receive State compensatory funds either establish separate programs or use the Federal and State funds for a joint compensatory program with a single group of recipients and services.

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[8] The cooperation which the interviewers received from all these people deserves recognition here. The completion rate for interviews was 99.4%. It is only due to the continuing cooperation of the 100 sample districts, which were promised that their participation in the survey would not be revealed, that the NIE Compensatory Education Study is able to provide the information on compensatory services contained here.

Scope of Compensatory Education

Compensatory education involves most of the Nation's public school districts and many of its students and teachers, but constitutes only a small percentage of national expenditures for education. In 1975-76, educational expenditures in the United States for public elementary and secondary education were approximately $61.4 billion, of which $5.3 billion were supplied by Federal funds (NCES, 1975). In that year, Title I appropriations amounted to $1.8 billion, of which $1.6 billion went to support the operation of programs for the educationally disadvantaged by Local Educational Agencies.[9] Title I thus constituted 3% of the national expenditure for public elementary and secondary education but represented 34% of Federal expenditure. The total of State compensatory education appropriations for the 16 States with such programs was approximately $0.6 billion in 1975-76.[10] Thus, combined Title I and State compensatory education expenditures generally amounted to $2.4 billion, or 4% of total national expenditures, for public elementary and secondary education.

Public school enrollment in grades K-8 was approximately 30.5 million in 1975-76 (NCES, 1976). From the survey of compensatory education, it is estimated that in the 1975-76 school year, approximately 5.9 million public school students in Title I districts received compensatory education services, including both Title I and State compensatory education program participants.[11] Of the public school children enrolled in grades K-8, 19.5% are compensatory education students, a large proportion of these students.

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[9] Of the 15,453 school districts in the continental United States serving some elementary (K-8) grades in 1975-76, Title I funds were distributed to 13,877, or 90% of these districts (information from NIE Survey sampling frame).

[10] Based on information collected by NIE on State compensatory education programs.

Title I was intended to serve students in nonpublic schools as well as public school children. The latest available estimate of total nonpublic school enrollment in grades K-8 is 3.9 million students (NCES, 1974). The Survey of Compensatory Education collected information on the number of nonpublic school children receiving Title I services. From this information, it is estimated that 116,218 nonpublic school students are served by Title I. With an adjustment for decline of total nonpublic enrollment between 1971 and 1975, an estimated 5% of the students in the Nation's nonpublic elementary schools are in Title I compensatory education programs.

Compensatory education also involves a great many individuals teaching in the public schools. There are approximately 1.17 million public elementary (K-8) school teachers in this country (NCES, 1976). During the 1975-76 school year, an estimated 111,087 or 9.5% of the total were involved for some portion of their time in providing compensatory education instruction. Of these teachers, 71% were engaged full time in compensatory instruction. Most of these teachers were also paid with Title I funds. Using information in Title I applications from the districts, an estimated 8% of all elementary school teachers in Title I districts were paid with Title I funds.[12] The proportion of nonprofessional staff supported by Title I is much higher. Many local school districts use Title I funds to hire teachers' aides. Of all teachers' aides in Title I districts, an estimated 53.9% of these aides are paid from Title I funds.[13]

Characteristics of Compensatory Education

This section presents some information based on the survey data about the specific characteristics of compensatory education services and recipients.

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[11] This is the best estimate based on the sample. The standard error of the estimate is 595,000. This means that the actual number falls within a range of 595,000 above or below our estimate. All standard errors for the data in this report are for estimates at the 95% confidence level. Later reports will include estimates of the number of compensatory education students in grades 9-12.

[12] Standard error = 0.92%.

[13] Standard error = 8.64%.

Title I Expenditures.--The following discussion is based on data obtained from local Title I applications submitted by the school districts in the sample. The applications describe district plans for using Title I funds. It is important to point out that the dollar amounts and numbers of participants reported in those applications are prepared before districts know the exact amount of their Title I allocations for the next year, and thus they represent best estimates based on previous years. The survey also collected information, whenever available, on actual expenditures, as well as more accurate counts of participants from compensatory homeroom teachers. Preliminary analysis of data from the teacher sample indicates that the size of the student population served may be underreported on the applications; thus the following information should be viewed as suggestive of relationships only. The fiscal data will be analyzed more thoroughly and will be corrected both for any underestimates of numbers of participants and for cost differences across districts in salaries and resources. These analyses will be included in the September 1977 report.

In exploring these preliminary data, one question of interest was the relationship between various characteristics of a district and the size of its Title I budget. To examine this relationship, a regression analysis on the amount of Title I dollars was performed. The best predictors of the size of a district's Title I budget were the number of children in the district from families below the poverty level in the 1970 Census and the district's non-Federal expenditures per pupil. These two variables account for approximately 90% of the variance in the size of a district's Title I budget. This suggests that the largest amounts of Title I funds go to districts with large numbers of poor children and high non-Federal expenditures, and the smallest amounts to districts with small numbers of poor children and low non-Federal expenditures.

As described in Chapter II, the current process for the allocation of Title I funds involves the application of a formula to county-level statistics by the Office of Education. In most States, these county allocations must then be reallocated to school districts. The regression analysis indicates that the formula for district allocation derived from the survey data is quite similar to the Federal formula used for Title I allocations to counties by the Office of Education.[14] Counts of eligible children, based on AFDC data, and counts of neglected and delinquent children were not included in the regression analysis. However, the results of this analysis suggest that they do not have a large independent effect on the overall distribution of Title I funds to districts.[15]

Title I expenditures per pupil were also calculated, using the data from the applications. On this basis, the budgeted national average Title I expenditure per pupil participating in the program was $347 for 1975-76.[16] Title I expenditures, however, vary widely with the economic status of the school district. Tables III-1 and III-2 show how Title I expenditures per pupil and the ratio of Title I to non-Federal expenditures per pupil vary with two different measures of the economic status of school districts. Table III-1 uses "average per-pupil expenditures from non-Federal funds" (one index of the wealth of the school district itself), while Table III-2 uses "average family income" (a measure of the wealth of the residents of the district).

It is clear from the tables that by either measure of district poverty, the poorer districts spend less on Title I services per participant. It should also be noted that the data further indicate that the poorer districts are attempting to serve a larger proportion of all students with Title I funds and that the number of participants is positively correlated with the number of poor children in these districts. In looking at the ratio of Title I to non-Federal expenditures in Tables III-1 and III-2, it is particularly ironic that the guideline that Title I expenditures equal approximately one-half the average per-pupil expenditure from non-Federal funds is met only in the poorest districts. This is primarily because these districts initially have very low non-Federal per-pupil expenditures. Chapter II contains further discussion of research

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[14] Appendix C discusses the Federal formula in more detail. That formula can be expressed as Title I dollars = .16 (number of children in poverty plus AFDC children plus neglected/delinquent) (State average per-pupil expenditures from non-Federal funds).

[15] The second interim report will provide more detailed analyses of subcounty allocation procedures, based on research described in Chapter II.

[16] Standard error = $40. Estimates of the amount actually spent per pupil may be somewhat less when the application data are corrected for possible underestimates in projected numbers of participants.

TABLE III-1

TITLE I EXPENDITURES OF SCHOOL DISTRICTS CLASSIFIED BY NON-FEDERAL PER PUPIL EXPENDITURES

Average District Per Pupil Expenditure from Non-Federal Funds*	Average Title I Expenditure Per Participant	Ratio of District Title I Per Pupil Expenditure to Expenditures from Non-Federal Funds
Under $715	$290.44	.5047
$ 716-$1,042	313.75	.3455
$1,043-$1,368	490.54	.4323
$1,369-$2,156	480.49	.3219

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*The cutting points for these categories were established by the distribution.

TABLE III-2

TITLE I EXPENDITURES IN SCHOOL DISTRICTS CLASSIFIED BY AVERAGE FAMILY INCOME

Average Family Income Within the District*	Average Title I Expenditure Per Participant	Ratio of Title I Per Pupil Expenditure to Expenditures from Non-Federal Funds
Less than $6,749	$305.76	.4742
$6,749-$ 9,765	365.71	.4456
$9,766-$12,780	357.98	.3281
More than $12,780	399.06	.2649

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*The cutting points for these categories were established by the distribution.

being conducted on the relationship between district economic status and the distribution of Title I funds.

Uses of Title I Funds.--The survey collected information on whether districts use Title I funds to provide instructional or supportive services for public school children.[17] In general, almost all Title I districts use some of these funds for compensatory instruction. Approximately 98% of the districts use some Title I funds for instructional services, while approximately 59% use some Title I funds for supportive services. From the expenditure data, it is estimated that the national average Title I per-pupil expenditure for instructional services is $263, or an average of 76% of the total Title I budget.[18] The amount and proportion of Title I funds used for instructional rather than supportive services, however, also vary with the economic status of the district (see Table III-3). The poorest districts spend fewer Title I dollars per participant for instruction, and proportionately they spend about 20% less of their total budget for instruction than the wealthiest districts.

TABLE III-3

TITLE I EXPENDITURES ON INSTRUCTION IN DISTRICTS CLASSIFIED BY AVERAGE FAMILY INCOME

Average Family Income Within District	Average Percent of Title I Budget Spent on Instruction	Average Title I Instructional Expenditure Per Participant
Less than $6,749	69.6	$212.91
$6,749-$ 9,765	82.8	303.03
$9,766-$12,780	89.2	319.58
More than $12,780	91.1	363.74

One explanation for this pattern may be that while wealthier school districts have sufficient local funds to provide such services as medical care and counseling to students, the poorer districts do not; hence they turn to Title I funds to supply such services to the neediest students. This question will be explored in more depth in further analyses of the survey data.

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[17] Supportive services refers to the expenditure of funds for any services which do not involve direct instruction of the participants.

[18] Standard error = $25. As with total Title I per-pupil expenditures, this estimate may be revised when the data are corrected for possible underestimates in projected numbers of participants.

Far fewer Title I districts offer either compensatory instructional or supportive services to nonpublic school students. Only 17.1% of the Nation's Title I districts provide any instructional services to nonpublic school students, and even fewer districts, 7.7%, offer supportive services to these students. Nonpublic school enrollment is highly concentrated in certain areas. Over 50% of all nonpublic school students are in urban areas (NCES, 1974). To see whether this concentration was reflected in the data, the relationship between district size (number of students) and percentage of districts providing Title I services to nonpublic school students was examined (see Table III-4).

TABLE III-4

SERVICES PROVIDED BY TITLE I DISTRICTS
TO NONPUBLIC SCHOOL CHILDREN

District Size (No. of Students)	Percent Providing Instructional Services	Percent Providing Support Services
Less than 4,359	11.4	3.7
4,359-17,628	46.0	27.1
Above 17,628	76.1	61.0

As Table III-4 indicates, the relationship to size is striking. The larger school districts, which tend to be located in urban areas, are much more likely to provide compensatory education services to nonpublic school students than are either medium or small school districts. This is true for the provision of both instructional and supportive services. This relationship may be due to a combination of factors. There are certainly more nonpublic students in the larger districts, and many small districts may have no nonpublic students. It is also possible that urban nonpublic systems are more active in applying for Title I programs. A more detailed description of how Title I serves the nonpublic sector will be provided in later reports.

The percentage of districts that are using at least some Title I funds to support specific kinds of compensatory instructional and support services was also determined. For the survey, compensatory services were divided into three general categories: support services that do not involve direct instruction of children, and two sets of instructional services. The first of these (Group A) consists of those areas where it was difficult to develop a meaningful set of standardized questions about instructional practices and thus where only general information about the incidence of such services was collected. These were preschool/kindergarten readiness activities, instructional programs for dropouts, Follow-Through programs, industrial arts or home economics instruction, music or art instruction, instruction in health or nutrition, and general enrichment without a subject area focus. The second set of instructional services consists of those subjects about which we asked specific standardized questions concerning the characteristics of instruction. Group B included: remedial reading, mathematics, science, social/cultural studies, English as a second language, special education/learning disabilities, and language arts/communications skills.

Tables III-5 and III-6 give the percentage of districts using Title I funds for each instructional and support service. These tables present a detailed national picture of the uses of Title I funds.

The support services most frequently funded are those most directly related to instruction--resource centers and libraries. However, a substantial percentage of districts are using Title I funds to provide medical, transportation, and even food services. The specific instructional services that Title I districts are most likely to offer are remedial reading, mathematics, language arts, and preschool/kindergarten readiness programs.

It should be noted here that remedial reading and language arts are separate types of programs. Language arts instruction as offered by districts is a broad program of instruction in communication skills, covering such topics as grammar and such skills as spelling, writing, and speaking. Because language arts instruction does frequently include a reading component, the percentages of districts offering remedial reading or language arts instruction can be combined to obtain a clearer picture of the general emphasis on language ability in compensatory instruction.

TABLE III-5

VARIOUS SUPPORT SERVICES FUNDED WHOLLY OR IN PART BY TITLE I

Type of Service	Percent of Title I Districts Providing Service	Type of Service	Percent of Title I Districts Providing Service
Resource centers	28.5	Social work	12.2
Libraries	21.3	Counseling	9.5
Medical/dental	19.6	Community services	9.4
Psychiatric and diagnostic	18.8	Student body activities	7.9
Transportation	14.6	Clothing	5.5
Food	14.2		
Speach and hearing therapy	13.8		

TABLE III-6

INSTRUCTIONAL SERVICES FUNDED WHOLLY OR IN PART BY TITLE I

Instructional Group A	Percent of Title I Districts Offering Services	Instructional Group B	Percent of Title I Districts Offering Services
Preschool/kindergarten readiness activities	38.1	Remedial reading	69.1
General enrichment	8.5	Mathematics	45.0
Follow-Through	6.9	Language arts/ communication skills	29.7
Music and/or art	3.8	English as a second language	10.2
Special instructional program for dropouts	1.9	Special education/ learning disabilities	7.8
Health/nutrition	1.3	Social/cultural studies	1.8
Industrial arts/home economics	1.0	Science	1.2

About 95% of all Title I districts offer reading and/or language arts as part of their compensatory education activities.[19] A fact which further emphasizes the focus on language abilities in Title I is that while 39% of the districts offer reading but not mathematics only 11% offer mathematics, but not reading.

It is also important to know how many Title I districts offer more than one of these instructional or support services, and to determine the most frequent combinations of them; for example, how many of the districts using Title I funds for one support service, such as counseling, also use some Title I funds for other support services such as libraries. Table III-7 presents some preliminary information on the extent to which districts have limited the number of different compensatory services they support with Title I funds.

TABLE III-7

TYPE AND NUMBER OF CE SERVICES
FUNDED WHOLLY OR IN
PART BY TITLE I

	Percent of Title I Districts Offering Services (by number provided)			
Type of Service	0	1	2 or 3	More than 3
Support Services*	41	12	34	13
Instructional Group A**	50	39	7	1
Instructional Group B***	2	44	51	2

*Includes medical, counseling, food, libraries, etc.
**Includes preschool/kindergarten, Follow-through, general enrichment
***Includes reading, math, language arts, ESL, etc.

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[19] Most of these districts fund either a remedial reading or a language arts program, but not both. Only 8% of the districts offer both types of services.

One final point should be made with respect to the uses of Title I funds. When queried about the goals of Title I activities in their school districts, an overwhelming majority (82.5%) of all district administrators mentioned first the effort to improve the ability of compensatory education students to learn basic skills, and to bring their achievement level up to that of their peers.

Compensatory Education Students.--The Title I regulations specify a complex process by which districts are to select schools and students within these schools as recipients of compensatory education services. This process, as well as certain information collected by the survey on school and student selection criteria, is discussed in Chapter II. Here it will only be noted again that the average participation rate for schools classified by districts as eligible for Title I is quite high--90% nationally. With respect to students, an average of 57% of those children determined by districts to need compensatory services actually participate. The range of participation rates for these "needy" children, however, varies from less than 5% to more than 100% across districts.[20]

In selecting eligible students, most districts use some combination of standardized achievement test scores and teacher judgment as criteria for determining who will receive the compensatory services. To understand the final results of that process, a general picture of the age and racial/ethnic composition of the compensatory education student population in comparison to that of the total school population is presented.

Figure III-1 describes the distribution of total enrollment by grade for the Nation,[21] as well as the distribution of compensatory education students (those receiving Title I- or State-funded compensatory services) by grade for kindergarten through 8th grade. Nationally, total enrollment is fairly evenly distributed across grades 1 through 8. A slightly smaller proportion of students are in kindergarten through grade 3, where the current decline in the school-age population is reflected. The pattern for compensatory education students is somewhat different. Similar

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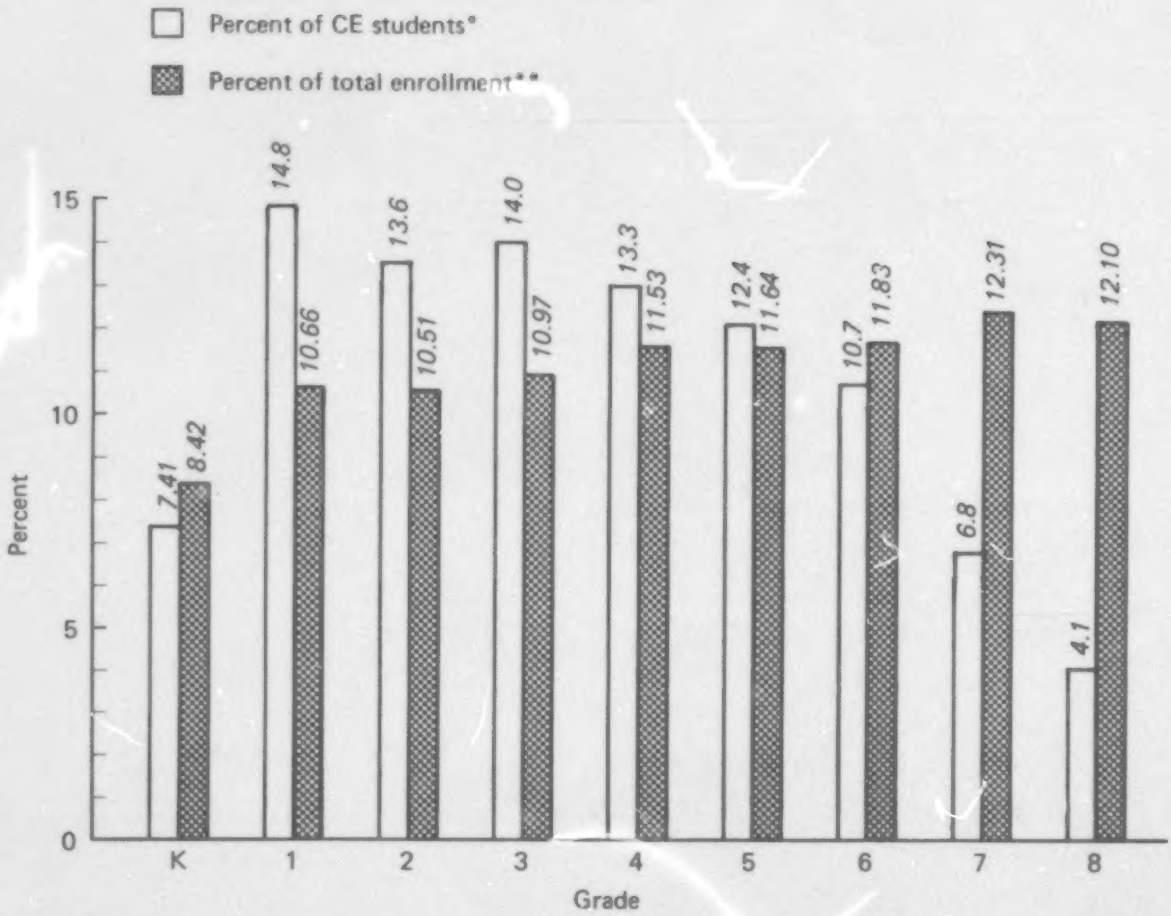
[20] Some districts serve more students than are found to "need" the services.

[21] The most recent available national totals are for 1973-74.



Standard Error	1.0	1.3	.8	1.0	.7	.7	1.0	1.8	.8

*1975-1976 NIE Survey data.

**1973-1974 total enrollment from *Digest of Educational Statistics: 1974 Edition*, NCES.

FIGURE III-1. PERCENT OF CE STUDENTS AND TOTAL ENROLLMENT IN EACH GRADE, K-8

proportions of compensatory students are in each grade from 1 to 6, with significantly lower percentages in grades 7 and 8. Very few of these students are in junior high school.

Table III-8 presents the racial and ethnic distribution of total enrollment in Title I districts, of students in homerooms within these districts which have at least one compensatory education student, and of compensatory education students in these districts.

As Table III-8 clearly indicates, there is a significantly higher concentration of minority group children in classrooms which contain one or more compensatory education students than in these districts as a whole. The proportion of minorities is higher still among the group actually receiving compensatory services. The proportion of Black and Spanish-surnamed students is approximately twice as high among compensatory education students as among all enrolled students, while the proportion of Whites is one-fourth less. It might be noted that the racial and ethnic composition of the compensatory education student population remains relatively constant across grades, although there is a small further decrease in the percentage of compensatory education students who are White and a comparable small increase in the percentage who are Black in grades 6-8. While not reported in Table III-8, the pattern for children from homes in which English is not the primary language is quite similar to that of other minority children: 3.4%[22] of all students in compensatory education homerooms are from non-English-speaking families, while 6.4%[23] of the compensatory education students are from such homes.

The proportion of compensatory education students is higher in compensatory education homerooms than in total enrollment. While compensatory education students comprise 19.5% of general enrollment, they average 35.9% of the enrollment in these homerooms.[24] This proportion does not vary significantly by grade. It should also be pointed out that 9.5% of the homerooms are composed entirely of compensatory education students. An additional 5% have between 76% and 100%

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[22] Standard error = 0.69%.

[23] Standard error = 1.23%.

[24] Standard error = 2.14%.

TABLE III-8

RACIAL/ETHNIC COMPOSITION

	Percent				
Category	White	Black	Spanish Surname	American Indian	Asian/ Pacific Islander
Total enrollment in Title I Districts	74.8	19.5	4.8	0.3	0.5
All students in CE homerooms	68.7	23.7	6.2	0.6	0.6
CE students	54.0	34.5	9.8	0.8	0.8
	Percent Standard Error				
Total enrollment in Title I Districts	4.83	4.17	1.22	0.11	0.09
All students in CE homerooms	4.29	4.08	1.55	0.15	0.25
CE students	5.82	5.84	2.19	0.40	0.20

compensatory education students. This may be an indication that the tendency to group compensatory education students for their regular schooling is relatively low, although these figures do not reflect the percentage of compensatory education students in the 100% compensatory education homerooms.

Instructional Services.--This section describes in more detail the instructional services that compensatory education students receive, including the subject of instruction and its duration. Table III-9 indicates the percentage of compensatory education students receiving compensatory instruction in each of the main subject areas (Group B) in grades K-8.

TABLE III-9

COMPENSATORY INSTRUCTION RECEIVED BY CE STUDENTS

Subject	Percent of all CE Students*	Standard Error
Remedial reading	50.41	2.80
Mathematics	44.44	4.28
Language arts/communication skills	35.02	2.00
Reading and language arts with a reading component	81.47	2.49
Language arts without a reading component	5.68	1.10
Social/cultural studies	13.74	2.83
Science	12.19	2.57
Special education/learning disabilities	5.31	0.83
English as a second language	2.86	0.62

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*Percentages do not add to 100 because some CE students receive CE instruction in more than one subject.

As Table III-9 indicates, the compensatory instruction most compensatory education students are likely to receive is remedial reading. Indeed, if one includes those students receiving compensatory instruction in language arts programs with a reading component, as well as remedial reading, over 80% of the compensatory education students in the country receive such instruction. No other single subject is taught to a majority of compensatory education students.

Students who receive compensatory education spend a significant proportion of their time in compensatory instruction. The survey collected information about the total amount of time available to all students for learning,[25] as well as about the amount of time students spend in compensatory education instruction in one or more subjects. From this information, it is estimated that compensatory education students spend an average of more than 5½ hours per week in compensatory education instruction. This measure takes account of participation by compensatory education students in more than one of the main compensatory instructional areas. The significance of the amount of time these students spend in compensatory instructional activities is clearer when stated as a percentage of total time available for learning. Table III-10 provides this information by grade for all compensatory education students.

TABLE III-10

AVAILABLE INSTRUCTIONAL TIME DEVOTED TO CE BY CE STUDENTS

Grade	Percent of Total Available Instructional Time
K	18.28
1	21.50
2	22.23
3	21.82
4	25.05
5	23.27
6	20.81
7	16.02
8	16.20

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[25] Districts were asked the number of minutes in a schoolday minus recesses and lunch.

Approximately 20% of all public school students in grades K-8 are spending 20% to 25% of their total time available for learning in compensatory education instruction. Table III-10 also indicates that there are some interesting variations by grade in the duration of compensatory instruction. The percentage of time in compensatory instructional activities is highest in 4th grade, lowest at the kindergarten and junior high school levels.

Characteristics of Instructional Staff.--The survey data also provide a description of the teachers who are providing compensatory education instruction. This section provides information on their racial and ethnic backgrounds, their education and experience, and their role in compensatory education activities.[26] Table III-11 indicates the racial and ethnic composition of this group. This distribution parallels quite closely that of total enrollment in Title I districts but is much less representative of the racial and ethnic composition of the compensatory education students, which includes more minorities and fewer Whites.

TABLE III-11

RACIAL/ETHNIC DISTRIBUTION
OF CE TEACHERS

Ethnic Group	Percent
White	76.8
Black	19.6
Spanish-surnamed	1.7
American Indian	0.1
Asian or Pacific Islander	0.5

The majority of those teachers providing compensatory instruction have some advanced academic training beyond the B.A., and a considerable percentage have at least an M.A. Table III-12 reports information on educational background as well as certification for these teachers.

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[26] Unfortunately, there are no up-to-date nationally aggregated data on these characteristics for teachers generally.

TABLE III-12

EDUCATIONAL BACKGROUND AND CERTIFICATION OF CE TEACHERS

Education	Percent	Certification	Percent
Less than B.A.	2.8	Temporary	15.8
B.A.	29.2	Renewable	25.1
B.A. plus courses	36.5	Permanent	58.1
M.A. or more	30.5	Other	8.4
		None	1.2

The pattern of teaching experience of these compensatory education teachers provides some indication that many have not specialized in teaching a particular subject. On the average they have taught the subject in which they are providing compensatory instruction for only 2 years, yet their average time in teaching is 10 years. Employment in the particular district averaged 7 years, and in the same school, 4 years.

Table III-13 indicates the distribution of teachers according to the subject in which they provide compensatory instruction. For the main instructional areas (Group B), the distribution of teachers closely parallels that of compensatory education students receiving different types of instruction, although the percentages are lower. It may be that aides are providing some of the compensatory instruction. The question of the use of aides will be examined in more detail in further analyses of the survey data. This is an important question, particularly since approximately 50% of all teachers' aides in Title I districts are paid with Title I funds.

Of all compensatory education teachers, 37.8% provide compensatory instruction in two or more subject areas: 17% teach in two areas; 13.2% in three or four areas; and 7% in five or more different subjects. It might also be noted that of those teaching two areas, the most frequent combination is reading and mathematics. This further supports the inference that many of these teachers have not specialized in teaching a particular subject. Whether they have received special academic training in teaching the subject cannot be answered from these data alone, although the large percentage of compensatory education teachers with M.A.s might indicate special

TABLE III-13

COMPENSATORY SUBJECTS TAUGHT BY CE TEACHERS

Subject	Percent CE Teachers*	Standard Error
Instructional Group A:		
Preschool/kindergarten readiness activities	16.96	2.13
Special instructional program for dropouts	0.65	0.44
Follow-Through program	9.32	2.16
Industrial arts/home economics	0.23	0.10
Music/art	4.94	1.35
Health and/or nutrition instruction	5.27	1.47
General enrichment	14.31	2.46
Instructional Group B:		
Remedial reading	43.82	2.60
Mathematics	31.87	3.88
Science	3.70	1.14
Social/cultural studies	5.91	1.37
English as a second language	2.76	0.77
Special education/learning disabilities	8.76	2.39
Language arts/communication skills	30.32	4.06
Other	3.24	0.65

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*Percentages do not sum to 100 because CE teachers may teach more than one subject.

training. The second interim report will present information on the number of compensatory education teachers who receive special training for compensatory instruction, the percentage of districts providing in-service training, and the way it is provided.

The percentage of compensatory education teachers teaching in each grade is reported in Figure III-2. This distribution parallels that for compensatory education students fairly closely: most are teaching in grades 1 through 6, with much smaller percentages in kindergarten and grades 7 and 8.

Compensatory Instruction in Reading, Language Arts, and Mathematics

The three most frequent subjects for compensatory instruction are remedial reading, language arts, and mathematics. This section presents a more in-depth description of the nature of each of these three services.[27]

Remedial Reading.--Remedial reading is offered by 69.7% of Title I districts. Based on data in Title I applications, the share of the Title I instructional budget allocated to remedial reading instruction averages 53.3%[28] nationally. In terms of the total Title I budget, 40.3%[29] is allocated to compensatory instruction in reading.

In offering compensatory instruction in remedial reading, Title I districts have chosen to focus primarily on grades 1-6. Table III-14 gives the percentage of Title I districts that offer compensatory instruction in reading in grades K-12. As the table indicates, compensatory reading is essentially an elementary school program; fewer than 10% of all Title I districts offer compensatory reading in grades 9-12.

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[27] The survey data provide similar information on the characteristics of compensatory instruction in science, social/cultural studies, English as a second language, and special education/learning disabilities. This information will be available in subsequent reports.

[28] Standard error = 7.47%.

[29] Standard error = 6.83%.

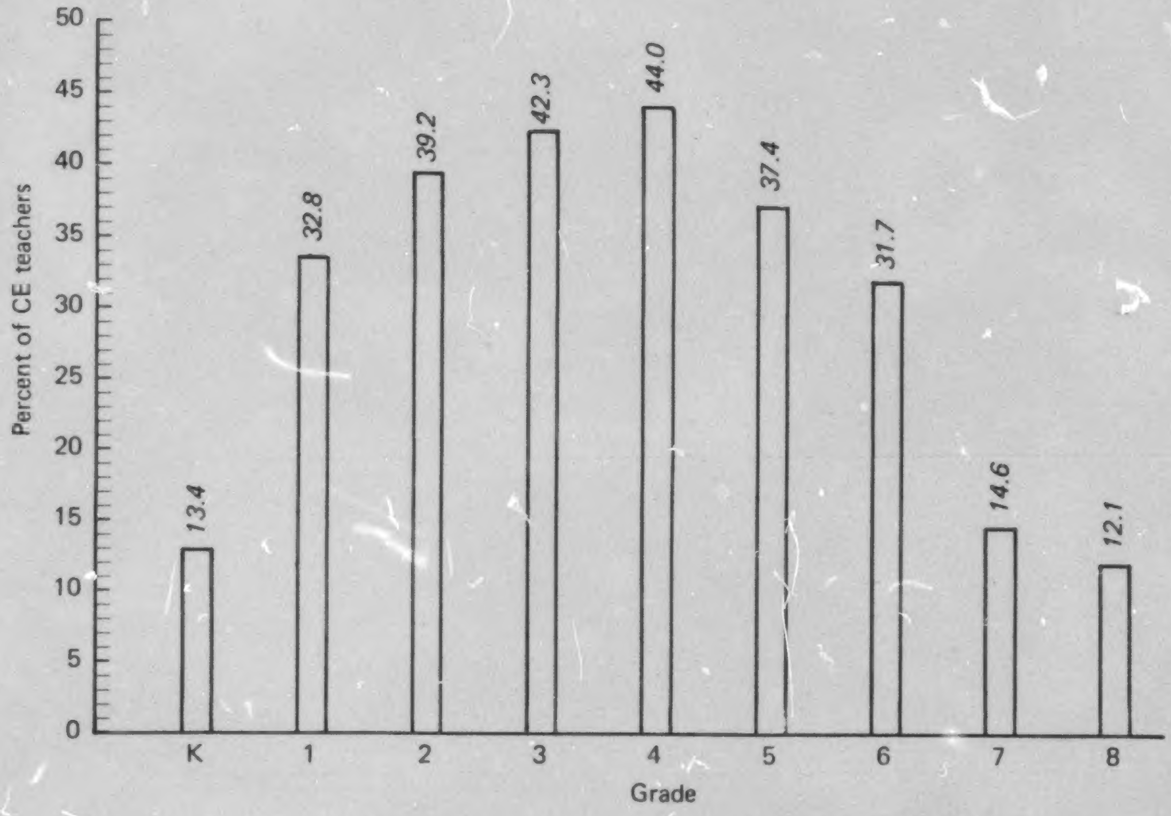

FIGURE III-2. PERCENT OF CE TEACHERS GIVING CE INSTRUCTION IN GRADES K-8

TABLE III-14

TITLE I DISTRICTS OFFERING COMPENSATORY INSTRUCTION IN REMEDIAL READING

Grade	Percent
K	7.1
1	47.9
2	61.5
3	65.0
4	59.8
5	60.8
6	47.9
7	24.0
8	19.6
9	7.0
10	0.7
11	3.1
12	0.7

Compensatory reading instruction is received by 50.4% of all compensatory education students in Title I districts. Figure III-3 graphs the percentage of these students in each grade K-8 who are receiving compensatory instruction in reading.

The percentages of compensatory education students receiving reading in grades K-3 are not significantly higher than those for grades 4-6. Approximately 63% of the compensatory students in grade 6 receive remedial reading. Because language arts instruction frequently has a reading component, the combined percentage of compensatory education students receiving reading or language arts with reading by grade could be calculated in order to see if this altered the grade distribution. The distribution does remain essentially the same.

One of the important issues in the delivery of compensatory instruction has been the question of whether to provide this special instruction within the students' regular classrooms or in different classrooms or even in another school or special learning center. The survey findings make it quite clear that most compensatory education students receive compensatory reading instruction in pullout programs. Only 14.7%[30] of the compensatory reading students get this instruction in their regular classrooms.

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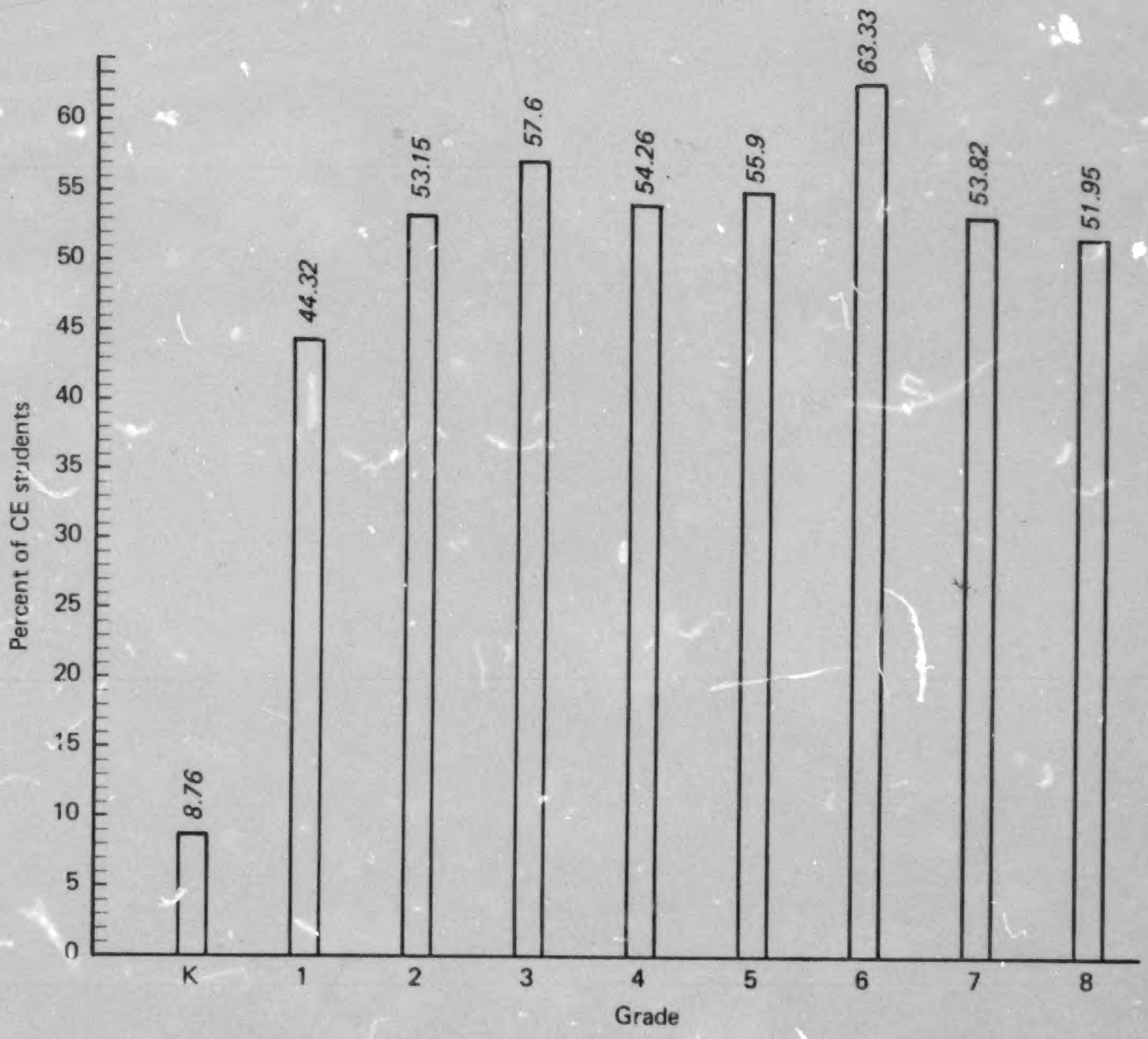
[30] Standard error = 2.2%.



Standard Error	2.24	4.28	4.30	4.36	4.86	4.47	4.07	4.22	3.16

FIGURE III-3. PERCENT OF CE STUDENTS RECEIVING COMPENSATORY READING IN EACH GRADE

Particularly given the large number of compensatory education students who leave their regular classrooms to receive compensatory instruction in reading, it is important to ask what kind of instruction these students may miss as a result of spending time in special compensatory instruction. The fact that Title I is, of course, supposed to provide supplemental instruction may present difficulties to program administrators, especially since the survey data indicate that less than 0.1% of the districts offer compensatory reading instruction outside of regular school hours.

According to their teachers, approximately 40% of the compensatory reading students were not missing instruction in any subject. It may be, however, that the question about what subjects these students missed was ambiguous and thus misinterpreted by some of the teachers. Inferences about what, in fact, takes place in the classrooms while those students are receiving compensatory instruction cannot be made from these data and, therefore, the results reported in this area must be viewed with some caution. The specific results are presented in Table III-15.

Although the percentage of students missing various subjects may be underrepresented in this table, nevertheless the results do suggest that compensatory instruction in reading does not necessarily replace a student's regular reading instruction. According to those teachers who named a subject, compensatory reading students may be just as likely to miss a variety of other subjects, particularly science and social studies.

Table III-16 reports the percentage of compensatory reading participants receiving this compensatory instruction from various types of instructors. Approximately three-fourths of the students in compensatory reading programs receive at least some of this instruction from teachers who specialize in teaching reading.[31]

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[31] Most compensatory reading teachers themselves currently specialize in teaching remedial reading, although the data do not permit a determination of whether they were trained as reading specialists. Of those teaching compensatory reading, 57.7% (standard error = 8.6%) are devoted full time to providing compensatory reading instruction.

TABLE III-15

KINDS OF INSTRUCTION MISSED BY CE STUDENTS DURING PARTICIPATION IN CE READING PROGRAMS

Subject	Percent of Participants	Standard Error
Reading	11.4	1.6
Language arts/communication skills	10.5	1.6
Mathematics	5.9	1.0
Social studies	15.9	2.0
Science	13.9	1.9
Music	5.8	1.1
Art	6.8	1.2
Industrial art/home economics	2.6	0.6
Physical education	4.7	0.9
Study time	15.8	2.0
Other	9.7	2.3
No subjects missed	42.8	3.2

TABLE III-16

TYPES OF TEACHERS FROM WHICH CE STUDENTS RECEIVE COMPENSATORY INSTRUCTION IN READING

Type of Teacher	Percent of CE Reading Students Taught*	Standard Error
Regular classroom teacher	52.9	4.4
Subject area specialist	74.8	3.3
Teacher's aide	49.4	5.7
Parents	5.9	1.4
Students	12.5	2.6
Other	7.0	1.2

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*Sums to more than 100 because many students receive this instruction in situations where more than one individual is involved in providing the compensatory reading.

The percentages in the table sum to more than 100 because many students receive this instruction in situations where more than one individual is involved in teaching compensatory reading. The most frequent combinations of staff providing this instruction will be calculated in further analyses of the data. One question of particular importance is the extent to which teachers' aides actually provide the instruction to compensatory education students.

The nature of the reading instruction received by compensatory education students can be reported in several ways. First, the amount of time spent in remedial reading instruction is described. Second, the individual attention these students receive is discussed in terms of average class size and the instructional techniques their teachers report.

For each student receiving compensatory reading, the average amount of time in such instruction is approximately 3 hours and 47 minutes per week.[32] If the amount of time in remedial reading is combined with the amount of time in language arts instruction with a reading component, the national average is approximately 4 hours per week per participant.[33] It should be noted that this is a smaller amount of time than is spent in compensatory instruction overall. This is a reflection of participation in several types of compensatory instruction.[34]

Variations by grade level in the length of the compensatory reading instruction received by participants were also examined, and this information is presented below in two ways: by minutes per week and by percentage of total time available for learning.

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[32] 227 minutes (standard error = 8.18 minutes).

[33] 238 minutes (standard error = 9.76 minutes).

[34] Unfortunately, there are no national data available on the average amount of instructional time regular students spend in reading instruction with which to compare this information. Two of the other studies commissioned by NIE (the Demonstration Research and the Instructional Dimensions Study), although not nationally representative, will collect information on amount of time in regular reading instruction which may be used to further interpret these figures.

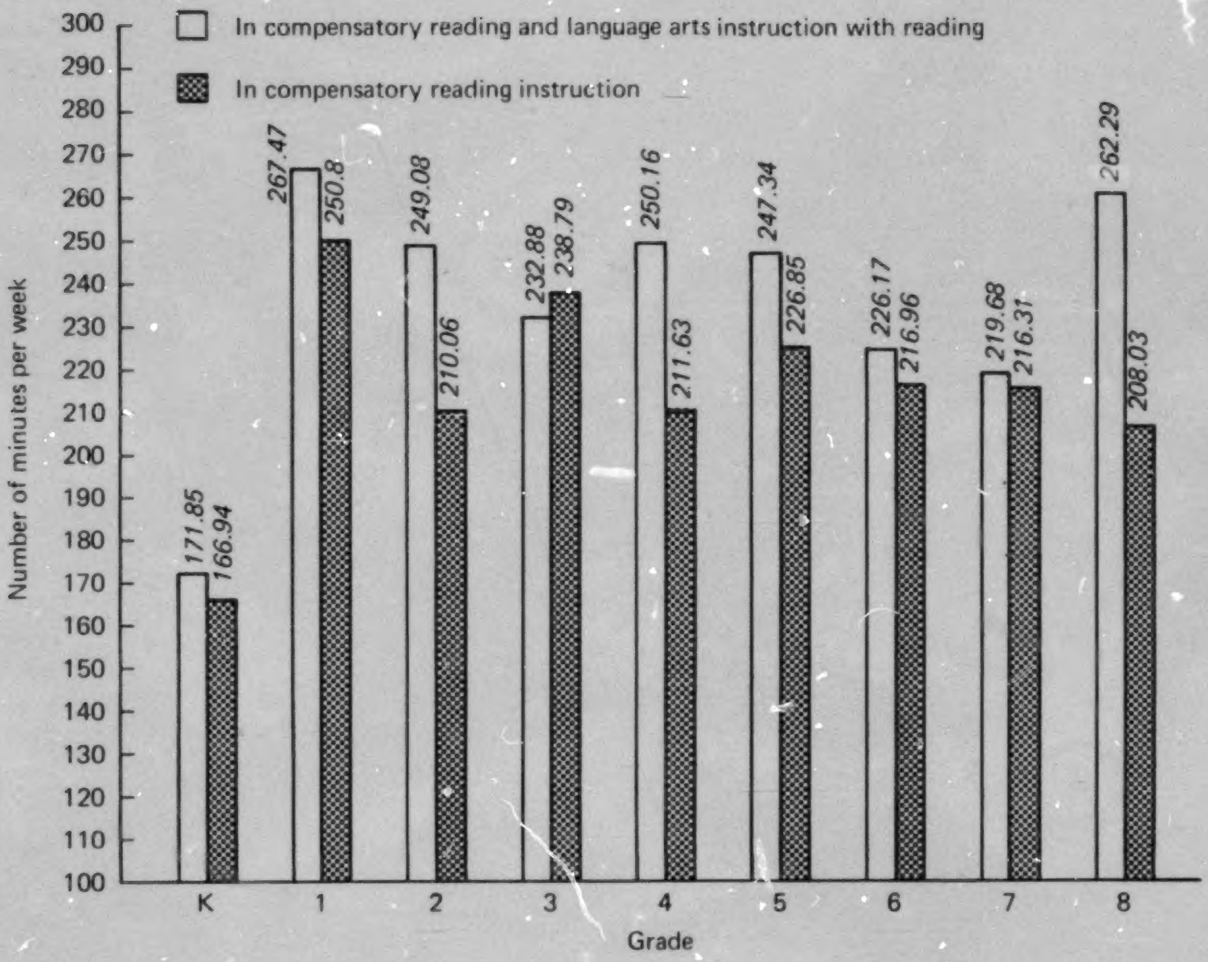
Both Figures III-4 and III-5 present the information for participants in remedial reading and for those participants combined with students participating in language arts instruction with a reading component. As Figure III-4 indicates, there are some significant grade level variations in the absolute amount of time spent in compensatory reading instruction. This amount is highest in 1st grade, with grade-by-grade shifts through 5th grade and slightly smaller amounts of time in grades 5-8. The pattern for reading combined with language arts reading is somewhat different. There is less variability between grades 1 and 7, and the largest amount of time is in 8th grade.

Figure III-5 expresses duration of instruction as the percentage of total time available for learning, thus taking into account variations in the length of time available for all instruction by grade. The students included in the base to calculate these percentages include only those receiving compensatory reading instruction. The percentages of available time devoted to compensatory instruction reported earlier (see Table III-10) referred to all compensatory education students.

First, it should be noted that the percentage of time spent in compensatory reading instruction is less than 20% in any grade. The range for reading is from 16.5% of available time in 1st grade to 12.5% in 8th grade. For both reading and reading combined with language arts programs with a reading component, the largest percentage of available time spent in this instruction is in 1st grade. In comparing Figures III-4 and III-5, the reader should note that as a percentage of available time, instead of an absolute amount, the duration of compensatory instruction in reading and language arts reading is lowest in 8th grade.

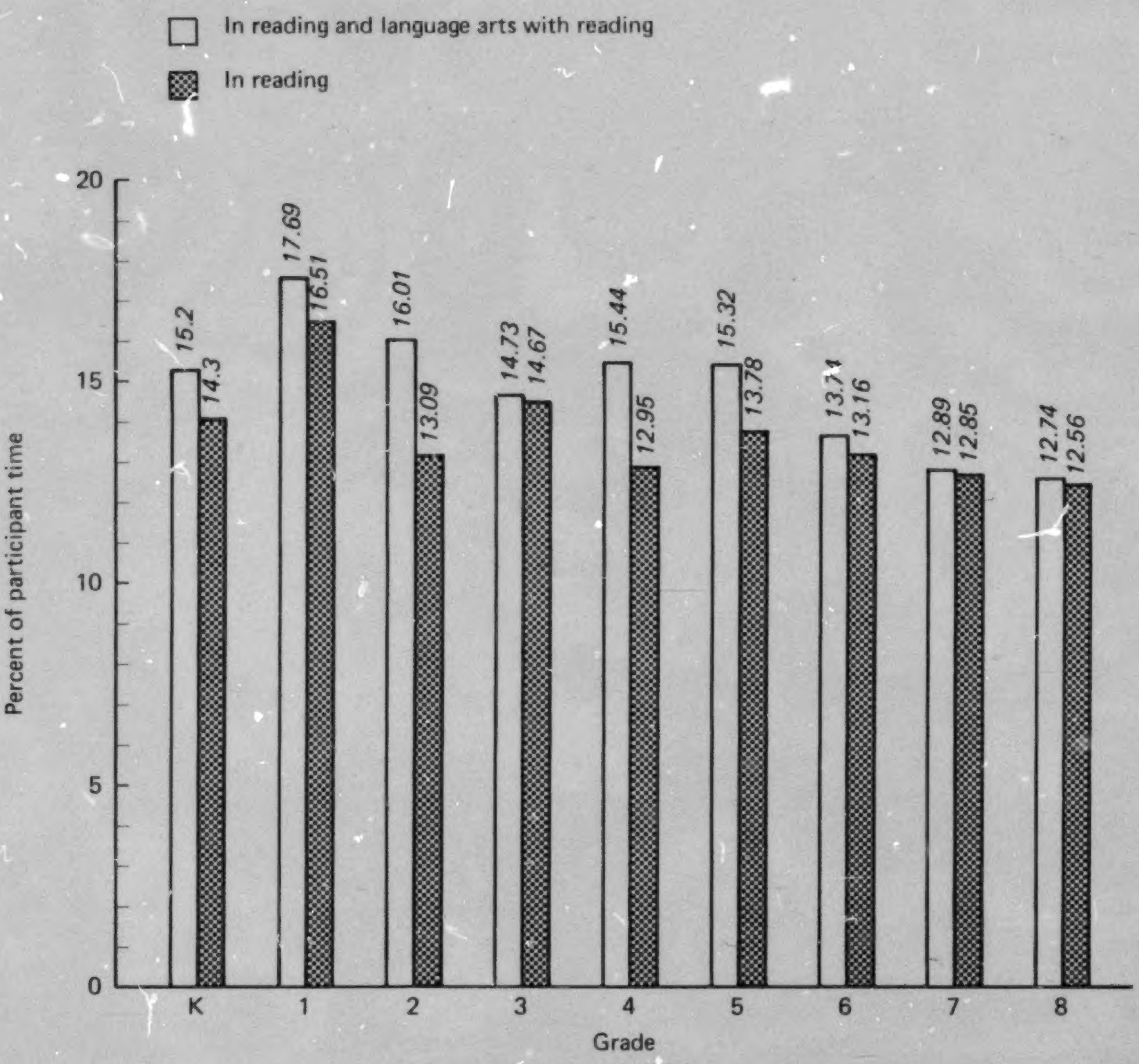
The extent to which compensatory education students are receiving individual attention in remedial reading instruction can also be assessed in terms of class size and types of instructional techniques used.

Figure III-6 reports that the average class size for compensatory instruction in remedial reading ranges from 7 to 12 students across grades K-8. These are small average class sizes. As the graph indicates, there is very little variation in class size between kindergarten and 6th grade; the average class is significantly larger in grades 7 and 8. Table III-17 reports the percentage of compensatory reading teachers



	K	1	2	3	4	5	6	7	8
Standard Error ☐	15.40	19.79	16.38	12.91	15.91	10.60	12.12	10.78	25.69
Standard Error ▨	44.45	23.56	11.37	14.94	12.86	11.47	11.17	8.19	12.42

FIGURE III-4. MINUTES PER WEEK PER PARTICIPANT



Standard Error	K	1	2	3	4	5	6	7	8
☐	2.16	1.38	1.23	.90	1.13	1.04	.97	.73	.65
▨	4.67	1.53	.82	.96	.91	.70	.89	.67	.83

FIGURE III-5. PERCENT OF INSTRUCTIONAL TIME DEVOTED TO CE INSTRUCTION

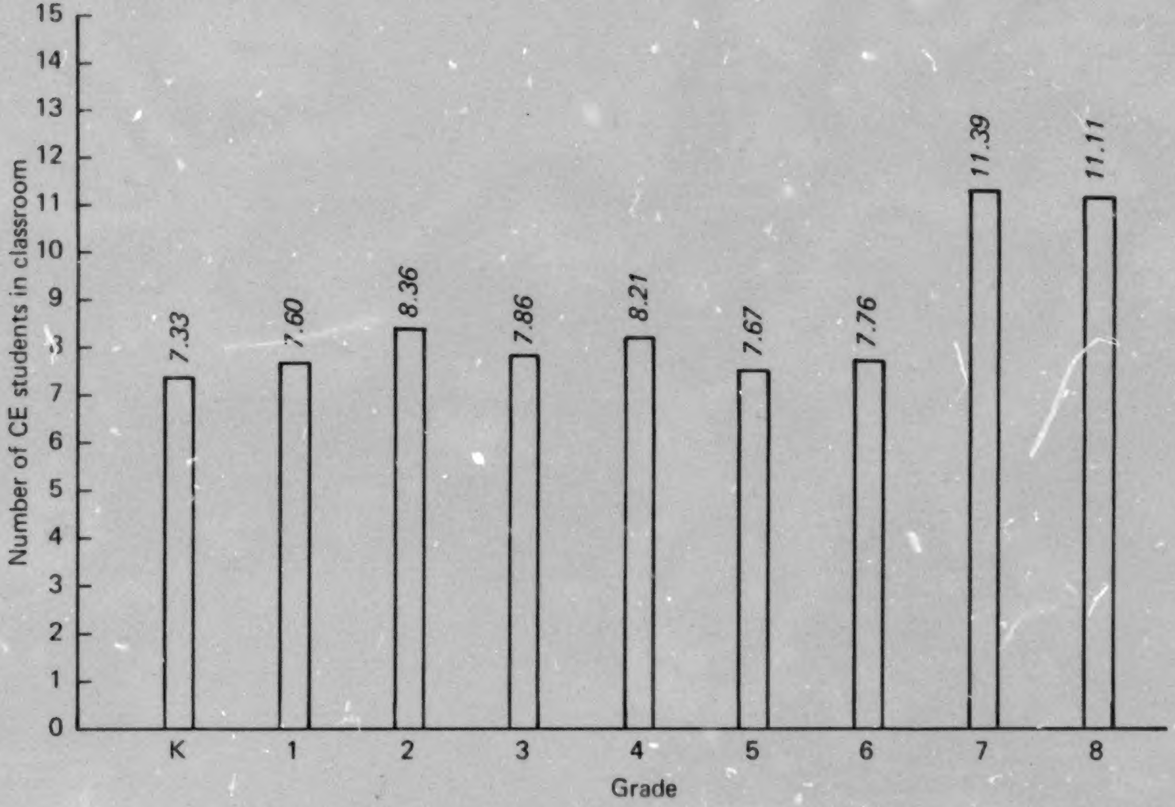


FIGURE III-6. AVERAGE CLASS SIZE FOR COMPENSATORY READING INSTRUCTION

teaching classes of various sizes by grade. This provides a clearer picture of the distribution of classes and the degree of variability both within and across grades.

TABLE III-17

CLASS SIZE IN COMPENSATORY READING PROGRAMS

	Percent of Teachers with Classes of:				
Grade	1-5 Pupils	6-10 Pupils	11-20 Pupils	More than 20 Pupils	Percent of Total Compensatory Reading Teachers*
K	46.5	38.7	12.7	2.1	4.4
1	45.9	35.9	13.0	5.2	35.8
2	42.5	36.6	15.8	5.1	48.4
3	40.9	38.0	16.0	5.0	50.1
4	35.3	37.9	22.9	4.0	52.5
5	39.4	34.6	23.6	2.4	43.7
6	41.3	33.1	23.3	2.4	38.7
7	23.3	16.2	56.0	4.5	16.5
8	29.5	9.7	54.8	6.1	12.3

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*Sums to more than 100 because teachers may provide instruction in more than one grade.

As can be seen from the table, very few compensatory reading teachers in any grade provide this instruction in classes with over 20 students, and a considerable percentage teach classes with 1 to 5 students. Up until grade 7, fewer than one-fourth are teaching in classes of more than 10 students, while in grades 7 and 8 more than half are teaching in classes with between 11 and 20 students.

The Congressional directive for the NIE Compensatory Education Study includes the charge that the Institute analyze ". . .the effectiveness of methods and procedures for meeting the educational needs of children, including the use of individual written educational plans for children." Individualized instruction has not been particularly well defined as a concept; however, it is basically concerned with ways in which teachers may pay attention to the differential abilities and learning problems of individual children. As part of the attempt to meet this charge, the national survey was designed so as to allow an estimate from compensatory education teachers' responses of the incidence of a number of dimensions of individualized instruction.[35]

Table III-18 reports the survey results for compensatory reading instruction in terms of the percentage of compensatory reading teachers using various techniques of individualization. Basically, the items in the table reflect four dimensions of individualization also studied in the Instructional Dimensions Study. These are (a) the existence of alternative learning paths and sequencing for individual children--items 1 and 2; (b) the use of individual or small group pacing--item 3; (c) the assignment of specific learning objectives or activities to individual children--item 4; and (d) the use of diagnostic and prescriptive activities--items 5, 6, and 7.

It is clear from the results that several of these dimensions were defined in such general terms that many teachers could report that they individualize their instruction. There are, however, some interesting variations, and some features of individualization were less likely to be used than others. Note, in particular, that sequencing and pacing for individual children are reported in widespread use, while the other dimensions indicate much less individualization of compensatory reading instruction. Less than 40% of the compensatory reading teachers establish specific performance objectives, and even those who do often also report that they set these objectives for the whole class, as well as for individual children. With respect to the use of diagnostic and prescriptive activities (items 5, 6, and 7), it should be noted that while a number of teachers report the use of individualized skill inventories for initial placement, many more report using standardized achievement test scores which reflect a student's performance in relation to others as opposed to measuring individual abilities. In addition, in assessing progress during the school year, most do not use the tests which are most appropriate for individualized instruction, i.e., criterion- or objective-referenced tests.

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[35] The NIE Instructional Dimensions Study, described in Chapter IV, examines the question of the relative effectiveness in raising student achievement of various dimensions of individualization.

TABLE III-18

DIMENSIONS CHARACTERIZING INDIVIDUALIZATION OF INSTRUCTION IN CE READING PROGRAMS

Instructional Characteristic		Percent of CE Teachers Employing Characteristic
1. Level of difficulty of instructional materials:		
All approximately same level		20.9
Vary in level of difficulty		78.4
2. Sequence in which skills are taught:*		
All students receive in same order		25.0
Students receive in different sequence		63.0
3. How tasks are assigned:*		
To whole class		17.0
To small groups		32.0
To individual students		38.0
4. Use of performance objectives:		
Specific performance objectives used		38.5
Of those using specific objectives, goals are set for:		
Each child	90.4%	
Subgroups	64.9%	
Whole class	73.1%	
Flexible definition of objectives		61.0
5. Measures used by teachers to assess performance level at beginning of instruction:		
Standardized achievement test scores		77.1
Standardized diagnostic test scores		45.7
Criterion or objective referenced tests		19.4
Student's age		14.8
Teacher judgment		72.7
Individualized skill inventory		47.6
Other methods		13.25

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*These questions were asked only of teachers with more than three students, so the percentages do not add to 100.

TABLE III-18 (cont'd)

DIMENSIONS CHARACTERIZING INDIVIDUALIZATION OF INSTRUCTION IN CE READING PROGRAMS

Instructional Characteristic	Percent of CE Teachers Employing Characteristic
6. Measures used to assess students progress during the year:	
Review of homework/workbook	17.1
Criterion or objective referenced tests	24.8
Students oral participation in class	31.9
Student self-evaluation	5.0
Other methods	20.6
7. Frequency with which student progress is systematically recorded:	
5 or more times a week	23.1
1-4 times a week	46.0
1-3 times a month	21.6
Less than 1-3 times a month	8.8

Overall, the findings on the nature of compensatory reading instruction are mixed. The percentage of instructional time is fairly high, and the classes in which students receive this instruction are relatively small, a factor which may make close attention to individual children's needs easier. However, only some aspects of individualized instruction appear to be in widespread use. More information will be provided in later reports on the grouping procedures used and on the variability in the characteristics of this instruction.

Language Arts.--The remainder of this chapter describes compensatory instruction given in language arts and in mathematics. Information is reported on the same aspects of these two instructional areas as for remedial reading. At the end of the chapter, Table III-27 summarizes some of this information for all three subjects.

As noted previously, compensatory language arts instruction is usually selected as an alternative to remedial reading by Title I districts; only 8% of these districts use Title I funds for both. Language arts instruction, as the term is used here, always includes other communications skills besides reading. Approximately 30% of the Title I districts use Title I funds to support a compensatory program in language arts. According to application data, the national average share of the Title I instructional budget allocated to language arts instruction is 10.4%.[36] In offering compensatory language arts instruction, these districts have chosen to focus on grades K-6; fewer than 10% of Title I districts provide compensatory instruction in language arts in grades 7-12.

Compensatory education instruction in language arts is received by approximately 35% of all compensatory education students. Figure III-7 presents the percentage of compensatory education students receiving such instruction by grade for grades K-8. As the graph very clearly shows, the percentages are much lower in the higher grades. The percentage of compensatory education students participating in language arts programs is highest in kindergarten. About 61.8% of compensatory education students in kindergarten are receiving compensatory language arts instruction, while the percentage of students from other grades participating ranges from 42% to less than 15%. It may be that much of the compensatory language arts instruction in kindergarten is a form of reading readiness as opposed to more formal instruction in communications skills.

Of the compensatory education students in language arts programs, 34.5%[37] receive this compensatory instruction in their regular classrooms, while the remaining two-thirds receive it somewhere else. Pullout programs are not quite as prevalent in language arts compensatory instruction as in remedial reading. This may be partly

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[36] This is an average of 7.9% of the total Title I budget.

[37] Standard error = 5.1%.

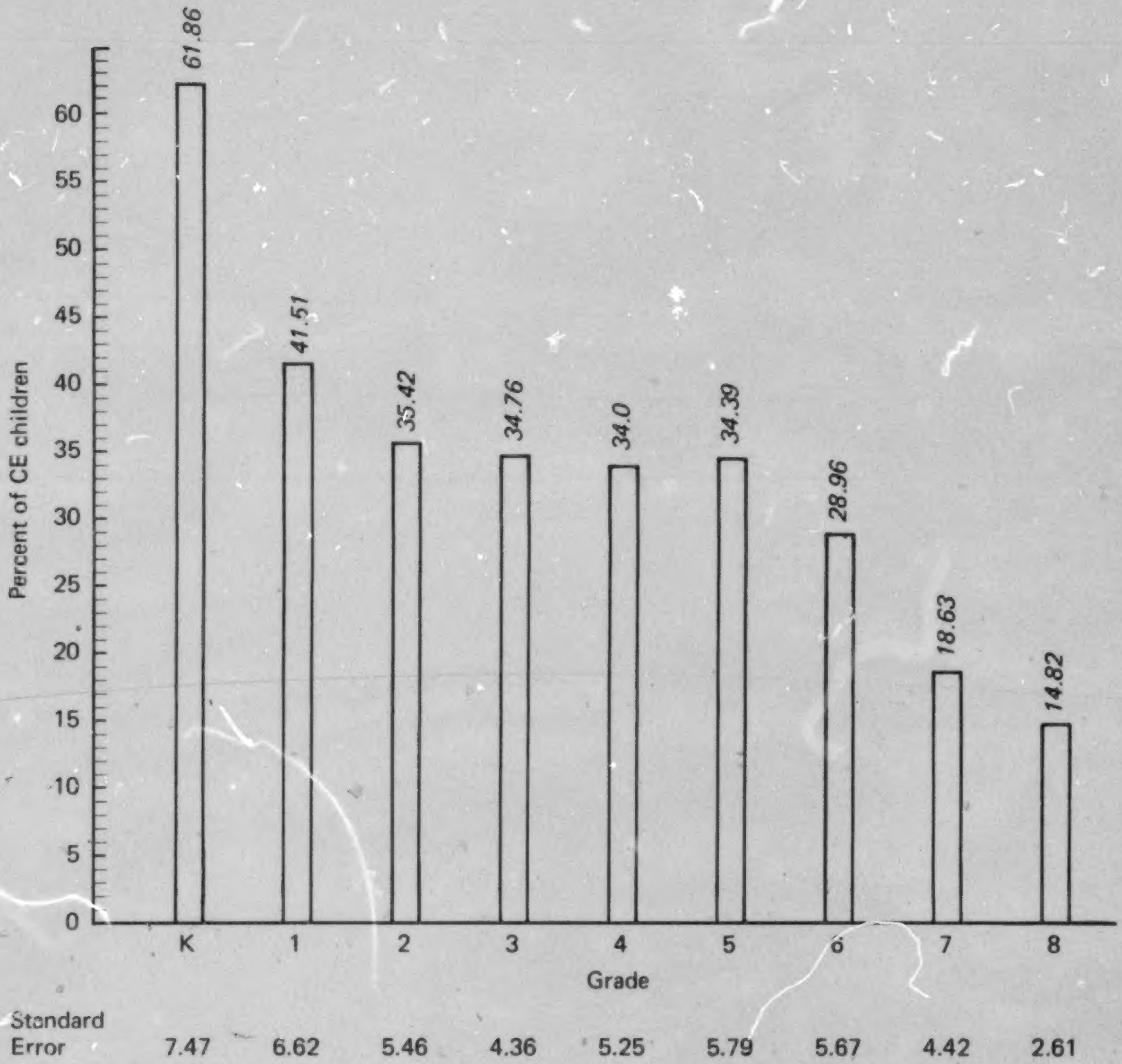

FIGURE III-7. PERCENT OF CE STUDENTS RECEIVING COMPENSATORY LANGUAGE ARTS INSTRUCTION IN EACH GRADE

due to the general focus on language arts rather than reading in the early elementary grades. Students are less likely to move about the school building to receive regular instruction in the early grades, and this fact may complicate the scheduling of pullout programs for students receiving compensatory language arts instruction in these grades. The relationship between the pullout practice and grade levels will be examined in future analyses of the data.

Table III-19 presents information on the subjects that students miss in order to receive compensatory instruction in language arts, according to their teachers. The pattern of responses is quite similar to that for remedial reading.

Table III-20 reports information on the types of instructional staff from whom these students receive compensatory instruction in language arts.[38] In contrast to remedial reading students, approximately 76% of those in compensatory language arts receive at least some of this instruction from a regular classroom teacher. This parallels information from the survey on the role of compensatory language arts teachers, as only 38.2%[39] devote all their time to teaching compensatory language arts.

The following discussion presents data on the nature of compensatory language arts instruction in terms of the amount of time, class sizes, and degree of individualized instruction. Generally, the length of time spent in compensatory language arts classes is similar to that for remedial reading. The national average is approximately 4 hours a week per participant.[40] Figures III-8 and III-9 present the grade level variations in compensatory language arts instruction in minutes per week and in percentage of total time available for learning.

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[38] The percentages sum to more than 100 because more than one type of individual may provide the instruction. The most frequent combinations will be presented in later reports.

[39] Standard error = 9.34%.

[40] 249 minutes (standard error = 17.93 minutes).

TABLE III-19

KINDS OF INSTRUCTION MISSED BY CE STUDENTS DURING PARTICIPATION IN COMPENSATORY LANGUAGE ARTS/ COMMUNICATION SKILLS PROGRAMS

Subject	Percent of Participants	Standard Error
Reading	5.6	1.2
Language arts/communication skills	10.0	2.4
Mathematics	7.1	1.5
Social studies	8.4	1.6
Science	11.8	2.2
Music	9.1	2.0
Art	9.5	1.9
Industrial art/home economics	5.6	1.3
Physical education	3.9	0.9
Study time	12.1	2.1
Other	7.1	1.4
No subjects missed	54.9	3.7

TABLE III-20

TYPES OF TEACHERS FROM WHICH CE STUDENTS RECEIVE COMPENSATORY INSTRUCTION IN LANGUAGE ARTS/COMMUNICATION SKILLS

Type of Teacher	Percent of CE Language Arts Students Taught*	Standard Error
Regular classroom teacher	76.6	4.8
Subject area specialist	46.8	4.4
Teacher's aide	66.7	3.2
Parents	12.9	3.1
Students	22.4	4.7
Other	9.7	1.6

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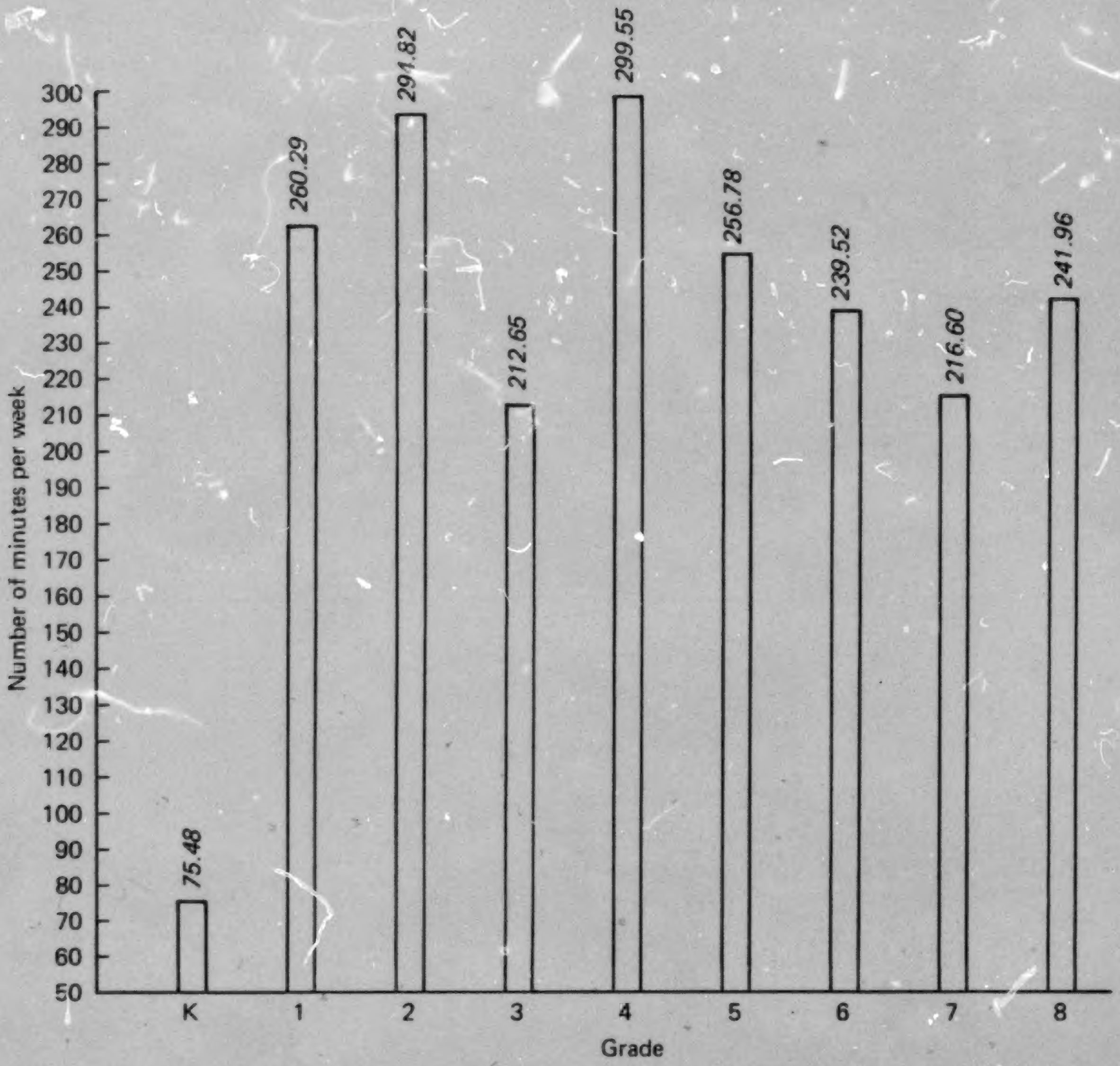
*Sums to more than 100 because more than one type of individual may provide the instruction.



Standard Error	22.88	23.37	34.05	22.19	28.12	17.83	18.26	25.84	12.43

FIGURE III-8. MINUTES PER WEEK PER PARTICIPANT IN COMPENSATORY LANGUAGE ARTS INSTRUCTION

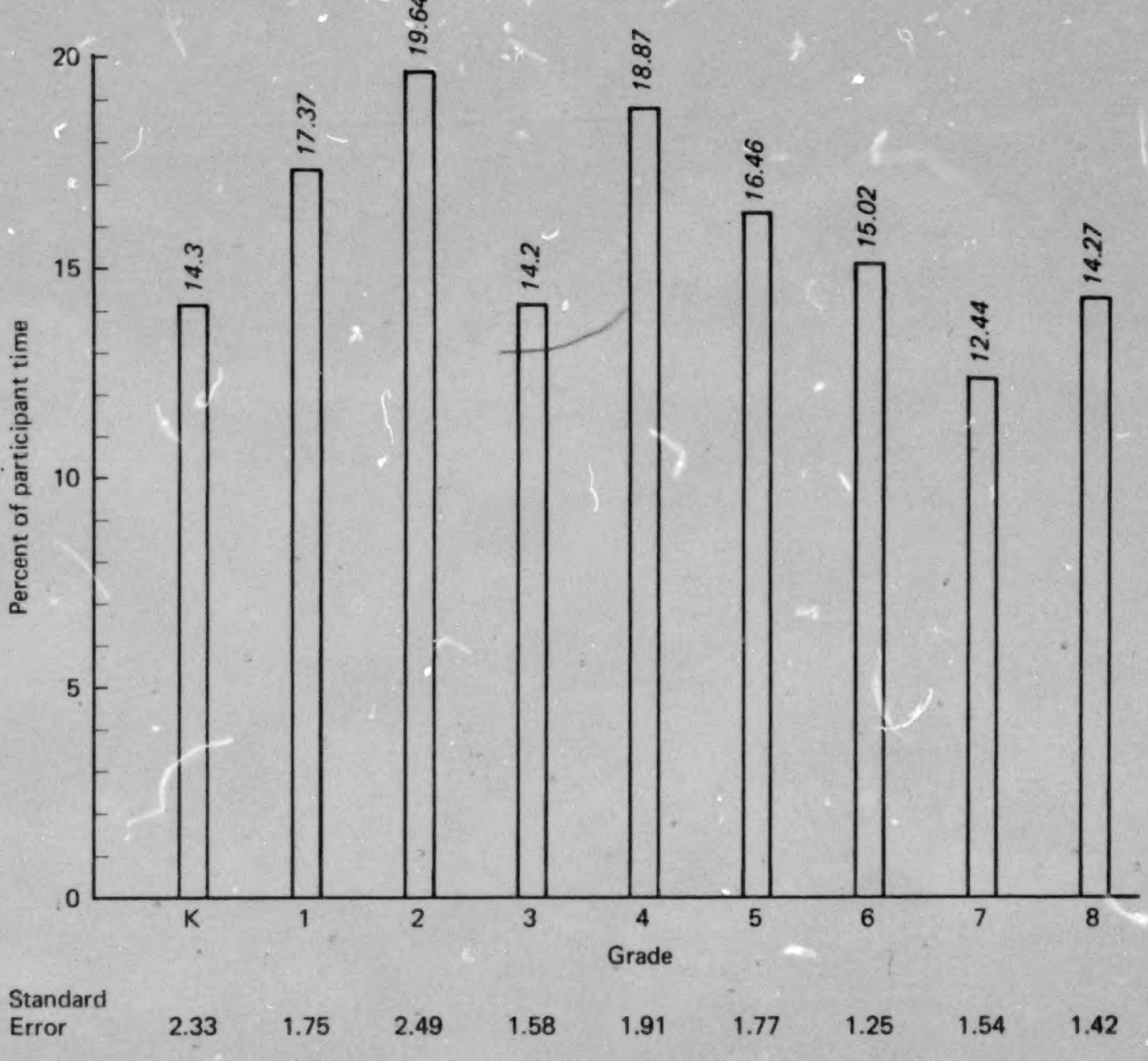


FIGURE III-9. PERCENT OF INSTRUCTIONAL TIME DEVOTED TO COMPENSATORY LANGUAGE ARTS INSTRUCTION

It should be noted that although the proportion of compensatory education students receiving compensatory instruction in language arts is larger in kindergarten than in any other grade, the amount of instruction is low--approximately 1 hour per week.

Another indicator of attention to individual students' needs is the average size of the classes in which compensatory education students receive their compensatory language arts instruction. Figure III-10 presents the average class size by grade for this instruction.

The average size of these classes ranges from 10 to 20 students across grades K-8. The only significant variation is in the middle grades (3-5), which have an average class size almost twice as large as in either grades K-2 or grades 6-8. Table III-21 shows the distribution of compensatory language arts teachers according to the size of the classes they teach in each grade.

TABLE III-21

CLASS SIZE IN COMPENSATORY LANGUAGE ARTS PROGRAMS

	Percent of Teachers with Classes of:				
Grade	1-5 Pupils	6-10 Pupils	11-20 Pupils	More than 20 Pupils	Percent of Total CE Language Arts Teachers*
K	27.1	34.2	20.1	18.5	18.4
1	34.3	31.4	27.3	7.1	32.5
2	32.3	29.3	29.7	8.6	32.6
3	31.1	28.9	27.5	12.4	38.8
4	37.4	26.6	26.2	9.8	33.3
5	30.4	27.9	29.6	11.8	25.3
6	29.7	30.8	33.5	6.0	24.4
7	28.6	7.7	49.1	14.6	12.2
8	33.7	15.1	37.7	13.5	11.6

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*Sums to more than 100 because teachers may provide instruction in more than one grade.

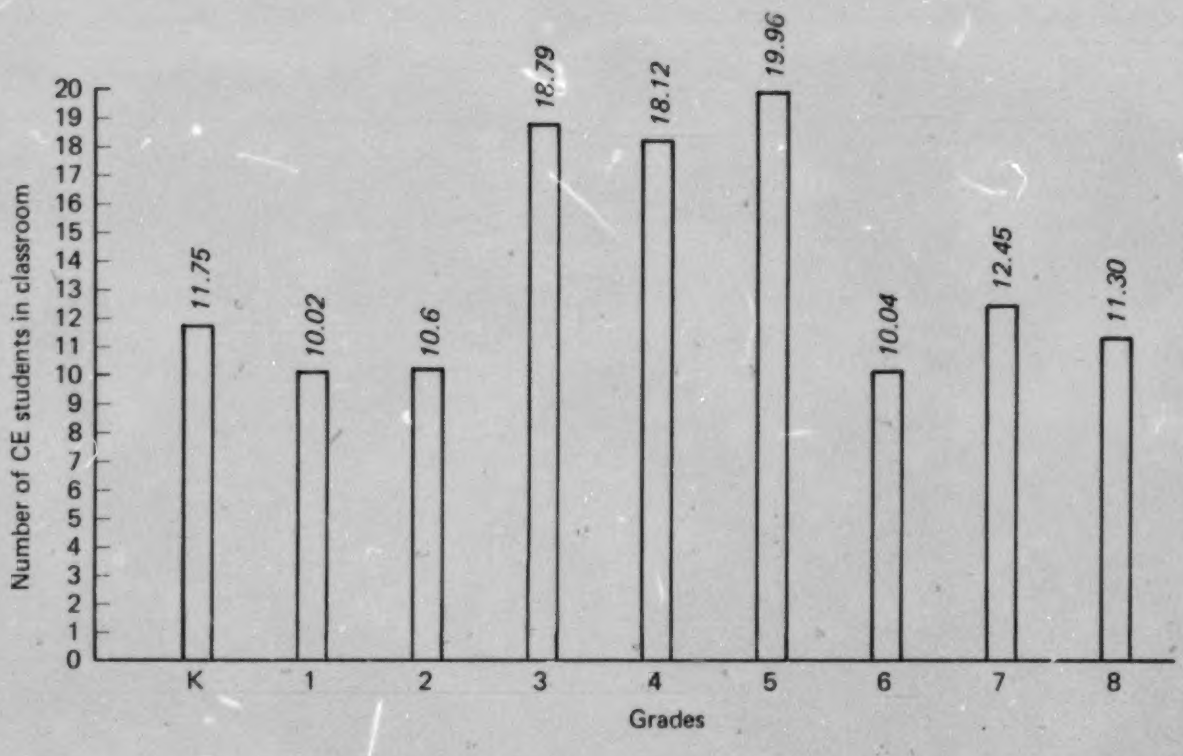

FIGURE III-10. AVERAGE CLASS SIZE FOR COMPENSATORY LANGUAGE ARTS INSTRUCTION

Up until 6th grade, more than half of the compensatory language arts teachers are providing this instruction in classes of from 1 to 10 students. In general, the distribution indicates that there is considerable variation in class size, particularly in certain grades, for compensatory language arts instruction. These classes are also somewhat larger than compensatory remedial reading classes. It may be that classes are smaller for compensatory reading because of the greater prevalence of pullout programs in that subject. The relationship between class size and the pullout practice will be examined in further analyses of the survey data. Table III-22 presents the percentages of compensatory language arts teachers who report using various individualized practices in providing this instruction. The pattern of individualization reflected in Table III-22 does not differ significantly from that for compensatory reading instruction reported in Table III-18. In summary, compensatory instruction in language arts is characterized by fairly substantial class time, relatively large classes, and only some individualization of instruction.

Mathematics.--Compensatory instruction in mathematics is supported by Title I funds in 45% of Title I districts. These districts usually offer compensatory mathematics in grades 1-6. Nationally, the average share of the Title I instructional budget allocated to compensatory mathematics is 19.4%.[41]

Compensatory mathematics instruction is received by approximately 44% of the compensatory education students. Figure III-11 indicates the percentage of compensatory education students in each grade who receive it. As the graph indicates, higher percentages of compensatory education students are receiving compensatory mathematics in the upper elementary grades (4-6). There is a much higher percentage in grade 4 than in grade 3, and lower percentages in grades 7 and 8.

Of the students receiving compensatory mathematics, 37.4%[42] receive this instruction in their regular classrooms, as opposed to being "pulled out" for special instruction in a separate setting. This is a relatively high proportion in "mainstream"

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[41] Standard error = 2.69%. This is an average of 14.7% (standard error = 2.24%) of the total Title I budget.

[42] Standard error = 5.7%.

TABLE III-22

DIMENSIONS CHARACTERIZING INDIVIDUALIZATION OF INSTRUCTION IN CE LANGUAGE ARTS PROGRAMS*

Instructional Characteristic	Percent of CE Teachers Employing Characteristic
1. Level of difficulty of instructional materials:	
All approximately same level	28.1
Vary in level of difficulty	71.8
2. Sequence in which skills are taught:	
All students receive in same order	29.4
Students receive in different sequence	70.5
3. How tasks are assigned:	
To whole class	13.6
To small groups	43.1
To individual students	43.1
4. Use of performance objectives:	
Specific performance objectives used	43.0
Of those using specific objectives, goals are set for:	
Each child 83.7%	
Subgroups 71.2%	
Whole class 69.2%	
Flexible definition of objectives	56.9
5. Measures used by teachers to assess performance level at beginning of instruction:	
Standardized achievement test scores	70.8
Standardized diagnostic test scores	43.7
Criterion or objective referenced tests	24.1
Students age	17.0
Teacher judgment	79.5
Individualized skill inventory	60.0
Other methods	20.8

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*Those language arts/communication skills programs that include a reading component.

TABLE III-22 (cont'd)

DIMENSIONS CHARACTERIZING INDIVIDUALIZATION OF INSTRUCTION IN CE LANGUAGE ARTS PROGRAMS

Instructional Characteristic	Percent of CE Teachers Employing Characteristic
6. Measures used to assess students progress during the year:	
Review of homework/workbook	12.5
Criterion or objective referenced tests	25.0
Students oral participation in class	42.9
Student self-evaluation	2.9
Other methods	14.5
7. Frequency with which student progress systematically recorded:	
5 or more times a week	22.0
1-4 times a week	52.3
1-3 times a month	19.7
Less than 1-3 times a month	5.8

programs, compared to compensatory reading, although the majority of these students receive compensatory mathematics in a separate setting. Table III-23 reports the percentage of students who miss regular instruction in different subjects in order to receive compensatory instruction in mathematics. These percentages, based on teacher responses, are very similar to those for compensatory reading and language arts participants.

Of the compensatory education students receiving mathematics, 73% receive at least some of this instruction from a regular classroom teacher, as Table III-24 indicates. Forty-eight percent of these students receive some of their compensatory mathematics instruction from a teacher specializing in teaching compensatory mathematics. In contrast to compensatory reading teachers, only 39.2%[43] of compensatory mathematics teachers devote full time to such instruction.

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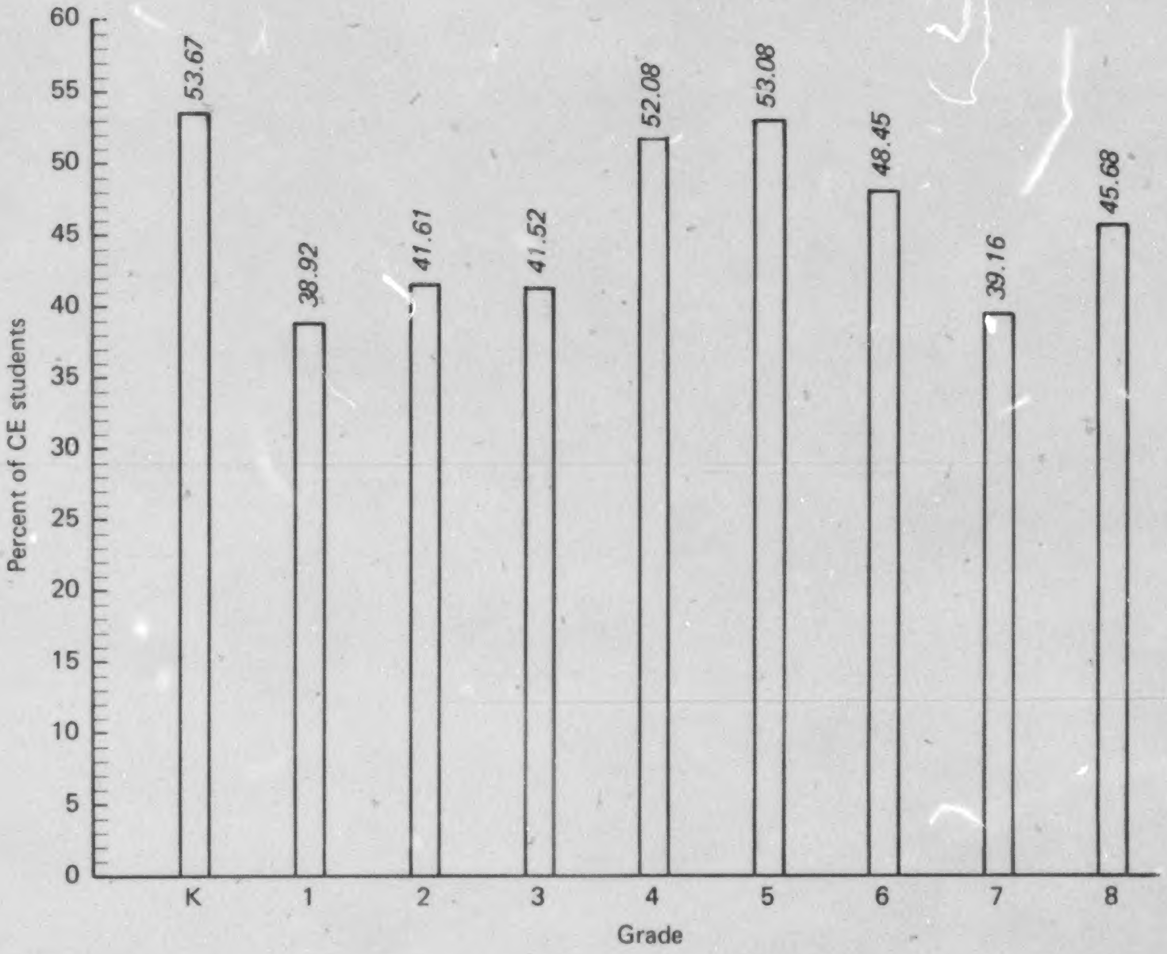
[43] Standard error = 8.91%.



	K	1	2	3	4	5	6	7	8
Standard Error	7.65	6.42	5.01	5.15	5.65	5.33	5.39	8.25	9.89

FIGURE III-11. PERCENT OF CE STUDENTS RECEIVING COMPENSATORY MATH IN EACH GRADE

TABLE III-23

KINDS OF INSTRUCTION MISSED BY CE STUDENTS DURING PARTICIPATION IN COMPENSATORY MATHEMATICS PROGRAMS

Subject	Percent of Participants	Standard Error
Reading	3.0	0.8
Language arts/communication skills	6.6	1.2
Mathematics	9.0	1.9
Social studies	10.0	1.6
Science	10.6	1.7
Music	7.3	1.4
Art	7.3	1.5
Industrial art/home economics	4.6	1.0
Physical education	4.1	0.9
Study time	10.2	2.0
Other	6.0	2.0
No subjects missed	54.1	3.1

TABLE III-24

TYPES OF TEACHERS FROM WHICH CE STUDENTS RECEIVE COMPENSATORY INSTRUCTION IN MATHEMATICS

	Percent of CE Mathematics Students Taught*	Standard Error
Regular classroom teacher	73.6	5.2
Subject area specialist	48.7	6.0
Teacher's aide	62.0	6.1
Parents	11.3	2.3
Students	23.3	3.6
Other	7.8	1.2

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*Sums to more than 100 because more than one type of individual may provide the instruction.

Finally, some data on amount of time, class sizes, and individualization of compensatory mathematics instruction can be reported. On the average, students participating in compensatory mathematics programs are receiving approximately 3 hours per week of such instruction.[44] This is less time than is spent by participants in compensatory reading and language arts instruction. Figures III-12 and III-13 graph the minutes per week and the percentage of total time available for learning spent in compensatory mathematics in grades K-8. As both figures indicate, the amount of time in compensatory mathematics appears to be highest in grade 4. There is also a significantly greater percentage of compensatory education students receiving mathematics in grade 4 than in grade 3. Instruction in mathematics usually changes between 3d and 4th grades from simpler skills to more complex computational skills such as the concept of multiplication. Noticeable skill deficiencies in mathematics may thus appear more clearly for individual students in the transition from 3d to 4th grade. If so, this may be reflected in the larger percentage of students receiving compensatory mathematics and the larger amount of time spent in such instruction in grade 4.

TABLE III-25

CLASS SIZE IN CE MATHEMATICS PROGRAMS

	Percent of Teachers with Classes of:				
Grade	1-5 Pupils	6-10 Pupils	11-20 Pupils	More than 20 Pupils	Percent of Total Compensatory Mathematics Teachers*
K	15.7	35.9	22.7	25.7	13.6
1	33.2	26.4	30.0	10.4	28.0
2	31.7	22.8	31.6	13.9	36.4
3	33.0	20.7	30.7	15.6	38.3
4	25.6	32.8	31.4	10.2	42.8
5	29.8	30.4	32.0	7.8	41.4
6	27.1	32.3	33.8	6.9	31.8
7	33.8	15.3	47.4	3.4	15.2
8	48.1	14.4	34.2	3.3	11.2

*Sums to more than 100 because teachers may provide instruction in more than one grade.

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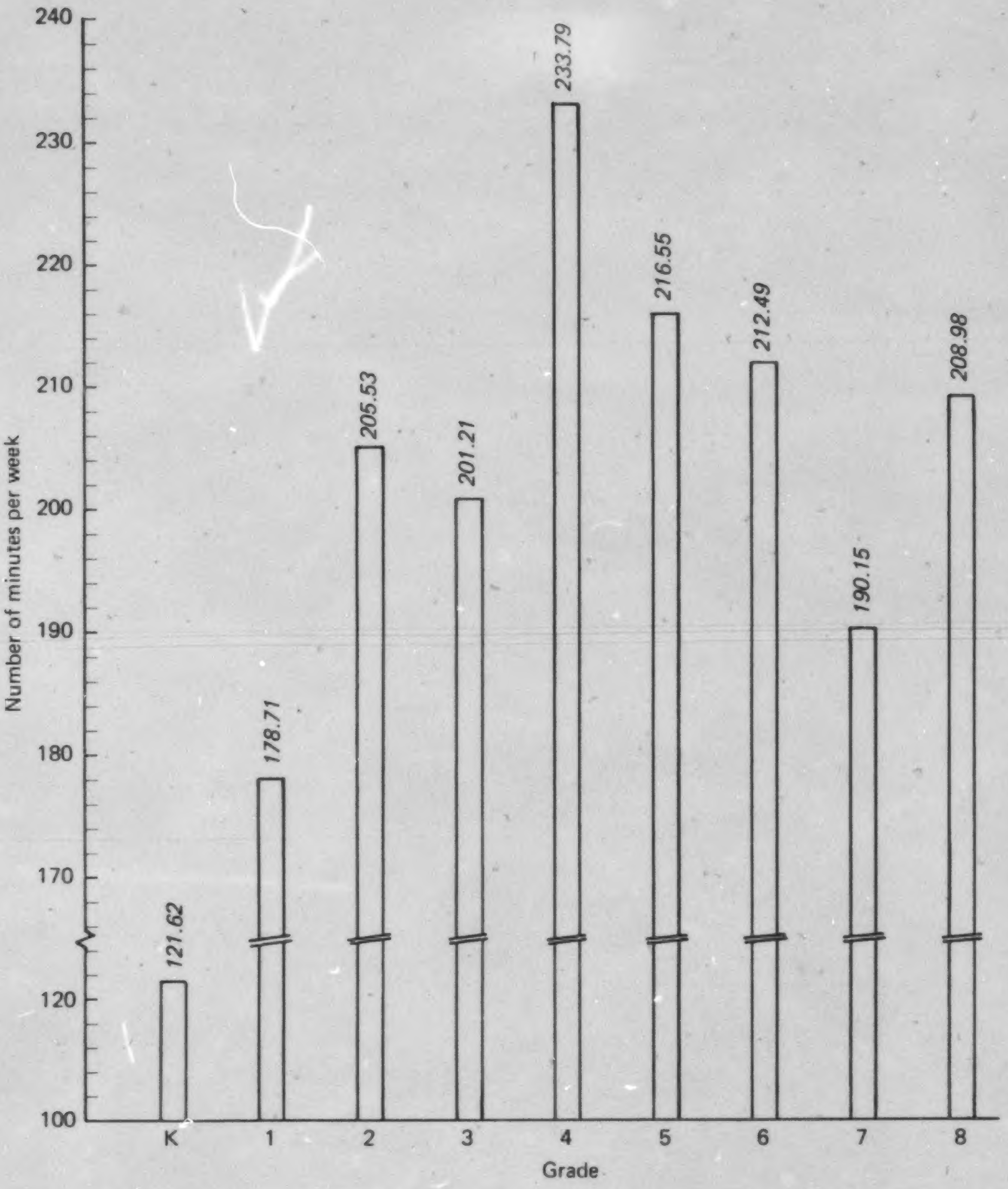
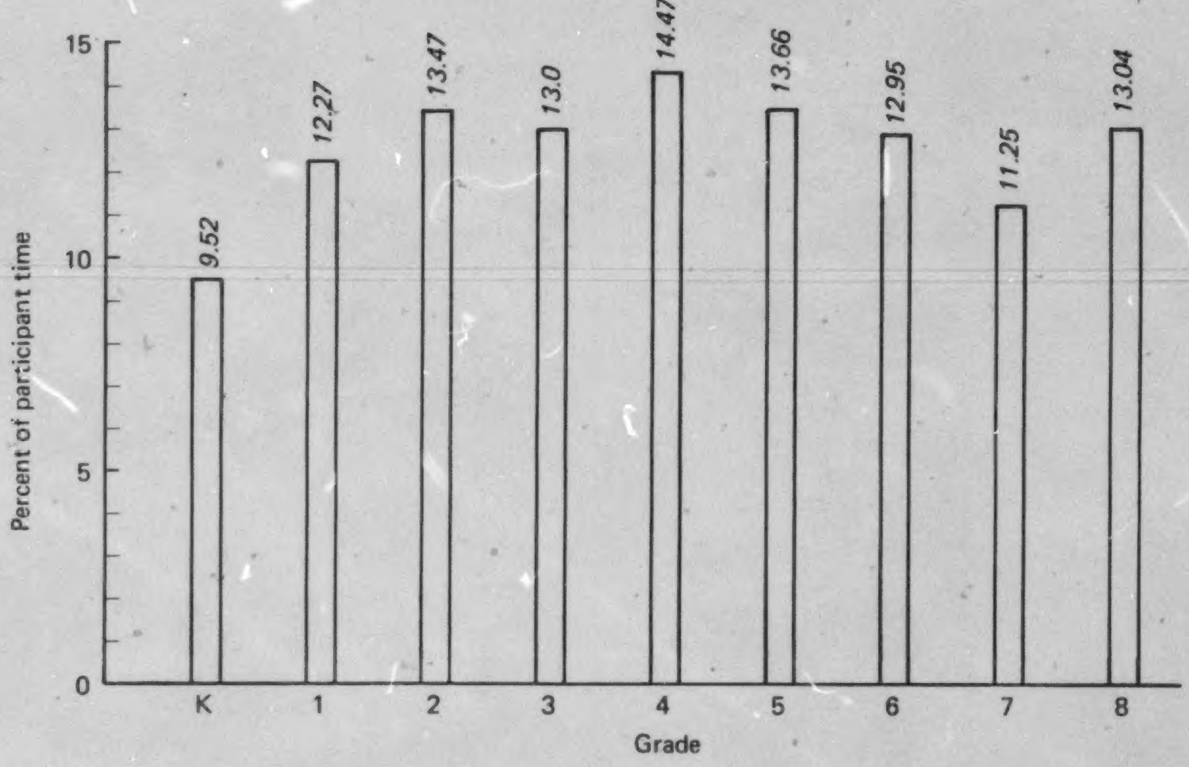
[44] 198 minutes (standard error = 6.15 minutes).



	K	1	2	3	4	5	6	7	8
Standard Error	12.29	12.08	16.57	10.16	11.59	12.96	13.90	8.12	7.70

FIGURE III-12. MINUTES PER WEEK PER PARTICIPANT IN COMPENSATORY MATH INSTRUCTION



Standard Error	1.16	.93	1.70	.71	.61	.88	.99	.55	1.12

FIGURE III-13. PERCENT OF INSTRUCTIONAL TIME DEVOTED TO COMPENSATORY MATH INSTRUCTION

Figure III-14 presents information on the average class size for compensatory mathematics instruction by grade. These averages vary only slightly from grade to grade. Table III-25, which reports the percentage of compensatory mathematics teachers giving compensatory mathematics instruction in classes of various sizes for each grade, indicates more clearly some of the variability among grades. Generally, there are more teachers with larger classes in grades 1-3 than in grades 4-8.

Table III-26 reports the percentage of compensatory mathematics teachers using various aspects of individualized instruction in their teaching of compensatory mathematics. The pattern of responses is very similar to that for compensatory reading and language arts teachers.

In summary, compensatory mathematics instruction is characterized by comparatively small amounts of time, larger class sizes, and some individualization of instruction.

Table III-27 summarizes some aspects of compensatory reading, language arts, and mathematics instruction presented in this chapter.

The report to Congress due in September 1977 will present information from the NIE national survey on several areas not available for this report. These include (1) the characteristics of local school district evaluation procedures for compensatory education, (2) the characteristics of support services funded by Title I, (3) Title I districts' planning and implementation procedures for compensatory programs, including the role played by Parent Advisory Councils, and (4) the characteristics of compensatory services delivered through the use of State compensatory education funds. A more complete picture of the variability in the characteristics of service delivery will also be provided to supplement the national averages presented above, with analyses of the relationships among many of these characteristics.

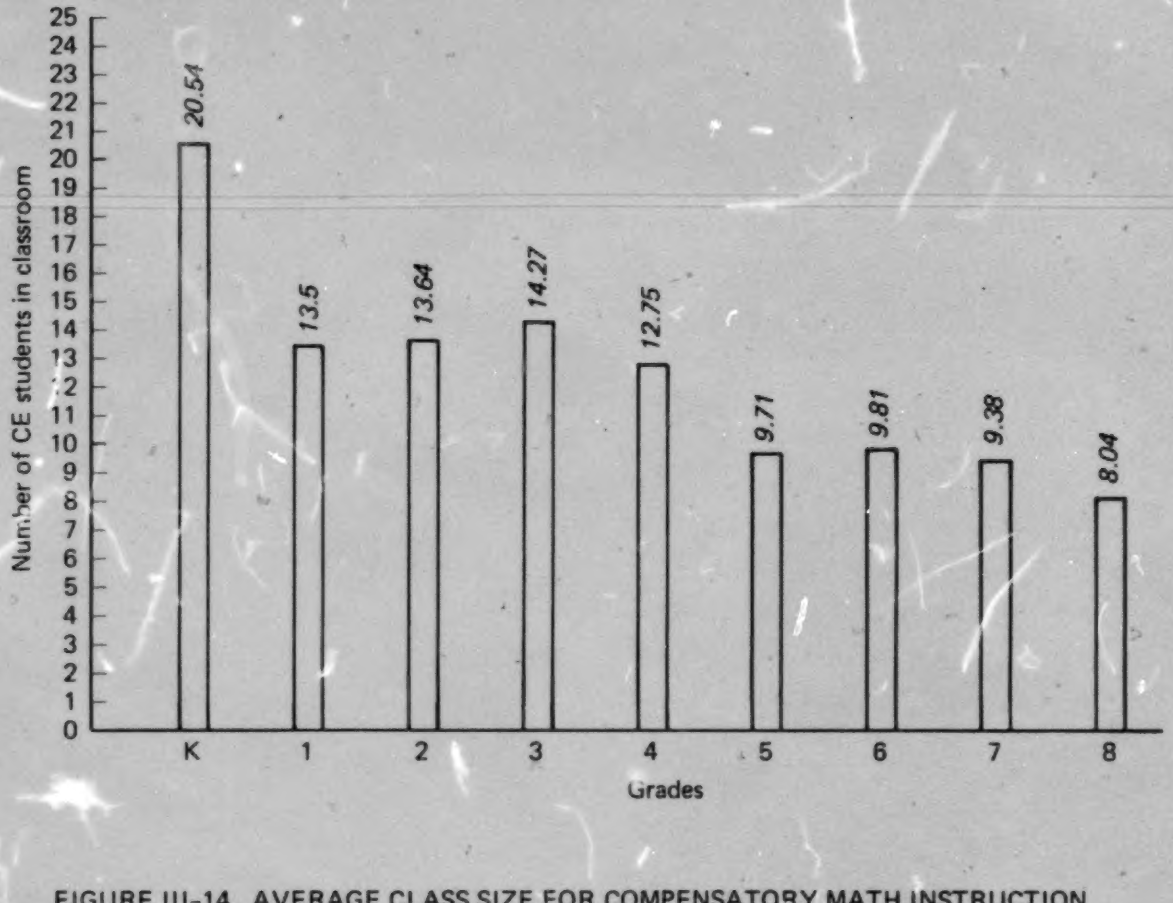


FIGURE III-14. AVERAGE CLASS SIZE FOR COMPENSATORY MATH INSTRUCTION

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TABLE III-26

DIMENSIONS CHARACTERIZING INDIVIDUALIZATION OF INSTRUCTION IN CE MATHEMATICS PROGRAMS

Instructional Characteristic		Percent of CE Teachers Employing Characteristic
1. Level of difficulty of instructional materials:		
All approximately same level		21.7
Vary in level of difficulty		75.8
2. Sequence in which skills are taught:*		
All students receive in same order		31.0
Students receive in different sequence		57.0
3. How tasks are assigned:*		
To whole class		17.0
To small groups		29.0
To individual students		43.0
4. Use of performance objectives:		
Specific performance objectives used		44.0
Of those using specific objectives, goals are set for:		
Each child	83.8%	
Subgroups	59.4%	
Whole class	70.0%	
Flexible definition of objectives		55.9
5. Measures used by teachers to assess performance level at beginning of instruction:		
Standardized achievement test scores		63.9
Standardized diagnostic test scores		35.1
Criterion or objective referenced tests		24.5
Student's age		11.1
Teacher judgment		68.1
Individualized skill inventory		36.4
Other methods		11.6

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*These questions were asked only of teachers with more than three students, so the percentages do not add to 100.

TABLE III-26 (cont'd)

DIMENSIONS CHARACTERIZING INDIVIDUALIZATION OF INSTRUCTION IN CE MATHEMATICS PROGRAMS

Instructional Characteristic	Percent of CE Teachers Employing Characteristic
6. Measures used to assess students progress during the year:	
Review of homework/workbook	15.0
Criterion or objective referenced tests	31.9
Students oral participation in class	32.0
Student self-evaluation	4.3
Other methods	16.6
7. Frequency with which student progress is systematically recorded:	
5 or more times a week	25.0
1-4 times a week	45.1
1-3 times a month	23.3
Less than 1-3 times a month	6.5

TABLE III-27

SELECTED INFORMATION ABOUT COMPENSATORY INSTRUCTION IN REMEDIAL READING, LANGUAGE ARTS, AND MATHEMATICS

	Subject Matter:		
Characteristic	Remedial Reading	Language Arts	Math
Percent of Title I districts offering	69.7	29.7	45.0
Percent of Title I instructional budget	53.3	10.4	19.4
Percent of CE students being taught	50.4	35.0	44.4
Percent of CE students receiving in "pullout" programs	85.3	65.5	62.6
Minutes/week/students being taught	227.47	249.39	198.01
Average class size	9	14	14
Percent of CE students receiving instruction from a teacher specializing in the subject	74.8	46.8	48.7
Percent of CE teachers in area who are full-time CE teachers	57.7	38.2	39.2

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CHAPTER IV. EFFECTS OF SERVICES ON CHILDREN

Chapter IV addresses the third of Title I's fundamental purposes: to contribute to children's overall development. At present NIE is funding a number of studies to increase understanding of how to design and implement services that promote children's development. This chapter explains the research strategy, discusses the specific program features examined, and summarizes the research efforts. Results from the NIE studies are not included in this report because the research is still in progress.

Despite the fact that development of children has been the main preoccupation of Title I evaluations to date, only limited data are available on the effects of Title I services on children. Earlier evaluations of Title I have shown that the topic is complex, that national evaluations are difficult to do well, and that useful information can be gathered only when studies are properly focused.[1] National evaluations typically have attempted to provide summary evaluations of the overall effects of Title I on student development. Rather than attempting a summary evaluation of this type, NIE's studies focus on significant features that can be controlled by, and are of interest to, educators and policymakers. The studies focus on the relationship between important characteristics of instructional programs and children's academic performance.[2] They examine the prevalence of these characteristics in compensatory education programs, and how the adoption of the most effective of these can be promoted by the design and administration of a Federal compensatory program. This strategy was chosen for a number of reasons.

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[1] NIE's approach owes much to earlier evaluators and builds on their experience. The history of Title I evaluation has been a slow process of learning how to live with the realities of the program. Evaluators have learned through experience that the diversity of program operations in different school districts rules out "black box" methods of research, which focus on inputs and outputs without consideration of what the program is in practice. They also have learned that the data routinely supplied by LEAs are not of uniformly high quality and cannot support the kind of rigorous analysis required in national evaluations. That history has guided NIE's thinking about what questions to ask and what research procedures to avoid.

[2] This strategy superficially resembles what has been called the exemplary program evaluation strategy, in which analyses were made of specially selected, effective programs to determine whether features could be found in common. It differs, however, in the criteria used for selecting programs--program characteristics rather than outcomes--and in overall research design and data collection methods.

First, Title I funds a variety of different instructional and support services. Earlier national evaluations were structured as if Title I funded very similar services to children across districts, which could be assessed using a single outcome measure--student achievement.[3] However, the assumption collides with an important truth about Title I: it does not provide one service, but many. For example, Title I funds breakfast programs for students. This use of Title I funds might, in the long run, enhance achievement. Nevertheless, immediate gains in achievement through such expenditures are unlikely, and the use of achievement tests to measure the short-term impact of such programs is inappropriate.

Second, the art of measurement is not uniformly well advanced in all areas of student development. Although Title I is intended to improve not only achievement but also the emotional and social growth of participating students, there are no generally accepted and broadly applicable definitions of such growth, and measures of outcomes in these areas are correspondingly unsatisfactory.[4] Generally accepted measures for assessing outcomes currently are available only in the area of cognitive development, and even in that area some important abilities such as creativity and independent thinking cannot adequately be measured. Achievement outcomes, particularly in reading and mathematics, remain the only area in which satisfactory measures are available for formal research, and NIE's work on student development therefore focuses on achievement outcomes. This approach is valid so long as it remains clear that the research reflects neither the full range of services intended to help children develop nor all the possible impacts of services on children.

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[3] We recognize that past evaluations conducted by school districts frequently included a wider variety of outcome measures. However, as noted above, attempts to use these evaluations to build a national picture of the effects of Title I on children have not been successful.

[4] Additional outcome measures that have been considered include tests of attitude toward schooling and instruction, self-image, locus of control, and thinking style; and auxiliary nontest indicators such as class attendance rates and incidence of school vandalism. A number of problems exist in using these measures as criteria for evaluating the effects of selected instructional services. NIE will, however, explore the usefulness of some in its research.

Finally, although programs designed to increase achievement in reading and mathematics are the instructional services most frequently delivered to Title I children, these programs vary considerably, and evaluations designed to assess their average effect on achievement can be misleading. School districts use a variety of instructional methods, some of which may be more effective than others. The application of a summary measure across different types of reading and mathematics programs is likely to mask this variation in effectiveness. Such an evaluation, therefore, may show no significant increase in overall achievement, even if particular programs or parts of programs are producing dramatically superior results. To conclude from such data that Title I has failed to increase achievement--a frequent conclusion of summary evaluations conducted in the past--seriously underestimates the ability of properly conceived and implemented services to raise student achievement. Further, the summary data offer little information for educators and policymakers who are looking for ways to provide more effective instruction.

On the basis of these considerations, NIE concluded that the most useful type of study would be one specifically designed to examine the relationship between achievement on the one hand, and variations in program features on the other. This approach makes it possible to examine the extent to which compensatory funds are being used for the kinds of instructional programs which have proven to be successful. The results can also provide Congress with information about whether Title I program requirements promote the adoption of effective instructional approaches, and provide educators with additional help in planning compensatory programs.

NIE designed several research projects to provide increased information about the relationship between selected program characteristics and achievement. The research includes the Instructional Dimensions Study, an in-depth examination of the effectiveness of individualized instruction; small-scale syntheses and analyses to summarize data on individualized instruction and other factors thought to influence achievement; and several plans for developing innovative programs.

In subsequent reports, data from these studies will be used to define instructional practices that hold promise for increasing student learning. The data being gathered will also be used to interpret information on current compensatory practices from other parts of the NIE study--specifically, from the National Survey of Compensatory Education, and from the studies addressing the impact of administrative practices, regulations, and guidelines on the implementation of Title I (see Chapters III and V).

ISSUES

In selecting the instructional program characteristics that the studies will examine, a number of sources were consulted. In addition to the directives contained in section 821, reviews of previous evaluations and research were important, as were conferences with teachers, program specialists, and policymakers.

Through this process, the following program features were identified for further exploration:

- o Individualized instruction
- o Instructional setting
- o Amount of instructional time
- o Teacher training

Individualized Instruction

The major focus of NIE's research is individualized instruction. The principal concern is whether programs using individualized instructional techniques are more effective than traditional instructional approaches; and, if so, what makes the individualized approach more effective. This emphasis was chosen because of the attention individualization has received from educators and because of the interest in individualization shown by Congress in its 1974 consideration of Title I. In addition, evidence from past research suggests that successful compensatory reading and mathematics programs use individualized techniques. However, the results of these studies are not entirely consistent, and individualized programs are not uniformly reported to be effective.

A major problem in interpreting the research results is the variety of ways in which the term individualized instruction has been used. Programs labeled individualized include teaching arrangements, such as tutoring and independent study; certain instructional techniques, such as individual diagnosis and pacing; and classroom arrangements which permit, but do not guarantee, these methods, such as small class size or open classrooms.

Another problem is that research on individualization has provided far more in the way of descriptive than evaluative data. That is, although there is no shortage of literature about individualized programs, most of it is focused on describing the nature of the programs, how to develop them, or whether teachers, administrators, students, and parents feel satisfied with them.

Findings on the effectiveness of individualized programs come from two kinds of studies: evaluation of educational programs and research on teacher effectiveness. However, these findings are not conclusive. Support for the effectiveness of individualization was found in early evaluations of successful compensatory education programs. A review of exemplary projects conducted by Wargo et al. (1971, 1972) found the following features, many of which describe individualized programs, to be characteristic of successful Title I projects: (1) academic objectives clearly stated; (2) individual or small group instruction; (3) directly relevant instruction; (4) high treatment intensity; (5) active parent involvement; and (6) teacher training related to program methods. Similarly, a review of compensatory program evaluations by the U.S. Office of Education (NSPRA Report, 1973) reports that successful projects often included (1) clear written objectives; (2) attention to individual needs, including individual diagnosis and prescription; (3) flexible grouping to permit frequent individual attention; and (4) structured sequential instruction.

More recent evaluations of individualized programs (Coles et al., 1976; Schoen, 1976 a, b; Miller, 1976 a, b) yield mixed results. Only Miller finds the results from program evaluations encouraging. In these studies, however, individualized instruction is defined in various ways, and it is difficult to determine whether the programs being evaluated are sufficiently similar to be placed under the single label individualized.

In examining why individualized instruction may or may not work, some of the most relevant findings come not from evaluations of individualized programs per se, but from studies aimed primarily at identifying effective teacher behavior. These provide considerable information on the methods of instruction that are related to increased achievement in the early elementary grades. Research on reading and mathematics instruction by MacDonald (1976), Soar (1973), Stallings and Kaskowitz (1975), and Brophy and Evertson (1974) suggests that the following characteristics are associated with effective instruction: (1) instruction structured by the teacher, proceeding in small steps through the material; (2) frequent questions by the teacher directly related to the factual content of the material, and positive feedback; (3) supervision of students' study; and (4) time spent on direct instruction. Rosenshine (1975) suggests that these characteristics define what might be called "direct instruction." They also characterize well-implemented, individualized curricula which employ a structured approach to teaching. It should be noted, however, that in these studies neither the variety of materials nor student-grouping practices are related to achievement. The effectiveness of these program features--features that essentially support but do not guarantee individualization--seems to vary considerably as a function of the overall context of instruction.

Taken as a whole, the findings are difficult to interpret. The many ways in which the term individualized has been used adds immeasurably to the confusion in the area. It is clear that NIE's studies must define carefully what is meant by individualized instruction and must be designed to examine whether the particular program characteristics selected are associated with success. NIE's major research effort, the Instructional Dimensions Study, assesses whether individualized programs with carefully specified features provide special advantages for compensatory education. Findings from this study, along with synthesis and secondary analysis work, will help provide Congress with clearer information about characteristics associated with program success. The object is not to provide a model or a curriculum believed to be the most effective; rather it is to elucidate the features of individualization which contribute to making various instructional programs successful.

Instructional Setting

NIE's studies will also examine the impact of instructional setting on program effectiveness. They will assess the influence of different settings, particularly mainstream versus pullout instruction, on both student achievement and student attitude toward school. Compensatory services can be delivered to students in a wide variety of instructional settings: in the regular classroom, in a separate laboratory or classroom, or even in a separate building. However, data from the nationally representative survey of Title I school districts indicate that reliance on the pullout practice is extremely high and that pullout instruction is the predominant means for delivering supplementary services to compensatory students. In mathematics, language arts, and reading, 60% to 75% of students are given compensatory instruction outside the regular classroom.

The Title I regulations do not require that schools deliver pullout instruction; however, they do require that Title I children receive an identifiable program. School districts often find it easiest to meet these requirements by implementing separate pullout programs rather than by providing extra services to Title I students within the regular classroom.

The effects of this practice on students are a subject of much debate. Local Title I personnel are divided on whether the practice is advantageous and should continue to be relied upon so heavily. Because of the interest of Title I personnel in this area, NIE included an examination of the advantages and disadvantages of the alternative settings as a major research question in its studies.

At present, the arguments are based far more on logic and practical experience than on research or on evaluation data. Proponents of pullout instruction feel that the educational needs of low-achieving students can be met more effectively when a separate compensatory program is provided. It is argued that teachers find it difficult to focus on the special needs of low achievers when students with a wide range of achievement levels are present in the classroom. In the pullout situation, instruction and materials can more readily be matched to the skills and needs of compensatory education students.

Proponents of mainstreaming (that is, providing extra instruction in the regular classroom) argue that pullout practices have some serious disadvantages. In Chapter III, it was noted that early studies suggest that the pullout approach often resulted in de facto segregation and tracking for regular as well as for compensatory instruction. Even where such abuses are not found, however, it is believed that mainstream instruction has several advantages. Arguments in favor of mainstreaming cite as benefits the greater ease with which regular and compensatory programs can be coordinated, the costs savings, the possibility of positive peer influences, and the decreased likelihood of lowering the self-esteem of compensatory education students.

Evidence relevant to the debate is sparse and inconclusive. Actual comparisons of achievement gains in mainstream and pullout situations are extremely hard to find. Most research in this area has focused on handicapped students, and the findings are not directly applicable. Work recently reported by Tobin (1976), however, suggests that the mainstream approach can be effective for delivering compensatory instruction and should not be summarily dismissed. He reports considerable success where individualized mathematics instruction was provided to elementary school students in a mainstream setting. Provision of extra in-class instruction, using support teachers and extra resource materials, resulted in increased achievement, as measured by the California Achievement Test.

Other research frequently considered in this debate focuses on questions only indirectly related to the pullout-mainstream argument, including studies of ability grouping and of the effects of peer-group composition on achievement. This literature is important, however, because the issues debated include many of the arguments raised in discussions of instructional setting.

Findings from studies of ability grouping suggest that this practice is not effective for instructing low-achieving students. Taken as a whole, these findings do not support the contention that grouping students by ability, as in the pullout situation, leads to desirable outcomes in either the achievement or the affective areas. Specifically, reviews of studies on ability grouping (Findley and Bryan, 1971; Esposito, 1973; NEA, 1968; and Ogletree and Ujlaki, 1971) indicate that, first, homogeneous ability grouping shows no consistent positive value for helping students achieve; moreover, among studies showing significant effects, the slight gains for high-ability students are offset by evidence of unfavorable effects on the learning of students of average and below-average ability, particularly the latter. Second, findings on the influence of homogeneous ability grouping on affective development are mostly unfavorable. Although the practice may build the self-esteem of children in the high-ability groups, it can also unfavorably affect the self-concept of those placed in average and below-average ability groups.

On the other hand, studies of peer influences do not support the claims of proponents of mainstreaming that the socioeconomic and achievement levels of their classmates affect pupils' academic performance. The predominant finding from analyses of data files, such as Project Talent (Bowles, 1969) and the Equality of Educational Opportunity Study (Smith, 1972), is that there is no evidence of a strong influence of peer group characteristics on achievement. In a summary of research on peer group influence, Averich (1972) indicates that there is no strong evidence for or against the existence of such influence, and that it has not been possible to separate the contributions of peer influence, school resources, and student background factors. Studies examining peer influence typically have been large, national efforts at data collection, in which peer variables were measured at the school or district level and the students studied were beyond the 6th grade. Consequently, the studies provide little information on classroom effects in the early grades.

NIE's research is designed to assess directly the questions that have been raised about the relative effectiveness of mainstream and pullout instruction for compensatory education students. In the Instructional Dimensions Study, student achievement and attitude toward learning will be assessed in two different settings with varied program characteristics. The characteristics include instructional group size, instructional methods, and available material and staff resources. This research should define more clearly the conditions under which each type of instructional setting can be beneficial, and provide program planners with better information on effective services for children.

Amount of Instruction

A number of studies are examining the relationship between achievement and amount of instruction (defined as instructional time). The studies will enable NIE to specify more clearly when and why extra instructional time leads to increased learning. Title I regulations explicitly require that Title I funds be used to provide extra services to children, and most Title I instructional programs provide students with extra time spent on reading or mathematics. However, we need to know considerably more about the relationship between the use to which time is put and children's learning.

A rapidly growing body of research literature focuses on the relationship between instructional time and learning, and models of learning increasingly emphasize time as an important dimension (Carroll, 1963; Cooley and Lohnes, 1976). Most of the literature looks at relationships between time and student achievement in a very general way. The findings nonetheless indicate that increased time is quite consistently associated with increased achievement. For example, time in school, defined as length of the school year, attendance rates, or length of the schoolday has been found to show a positive relationship to achievement (Wiley and Harnischfeger, 1974; David, 1974; and Heyns, 1975). Studies comparing the effects of different amounts of instruction in specific subject areas, such as reading and mathematics, also, in general, support the existence of such a relationship (Stallings and Kaskowitz, 1975; Broward County, 1971; Jarvis, 1963; Begle, 1971; and Zahn, 1966). A recent large-scale study of innovative programs (Coles et al., 1976) found an association between time spent in reading instruction and achievement although this association did not hold for mathematics.

It seems intuitively reasonable to expect that the amount of time students are allowed for instruction will affect what they learn. The amount of time available clearly limits what opportunities exist for instruction (and learning) to take place. However, time alone is not sufficient to guarantee effective learning, and how time is spent is obviously important. Research on the instructional process has recently begun to define more adequately how the use of time affects learning. For example, summarizing a series of studies directly related to the use of time, Rosenshine (1975) suggests that for time to be effective, it must be used for direct instruction. The most consistent effects of time are found in programs where time is structured by the teacher and used for carefully supervised learning. This conclusion is consistent with previous research on successful Title I projects. The work by Wargo et al. (1971, 1972), discussed earlier, indicates that directly relevant instruction and high treatment intensity were related to achievement gains.

Several projects also have examined the effects of periods away from instruction (e.g., summer vacation) on learning. These studies provide data on how the distribution of instructional time affects not only what is learned but also what is retained. Generally, during periods when instruction is not available, children do not maintain the rate of learning characteristic of the school year. However, it appears that low-achieving students are more affected by the summer period than high-achieving students. In analyzing Title I annual State reports, Thomas and Pelavin (1976) suggest that this difference in learning over the summer period may be of major importance for the long-term performance of these two groups of students. That is, during the school year the high and low achievers may be making very similar achievement gains. The findings suggest that the failure to maintain these gains causes the groups to draw apart over a period of time.[5]

Several of NIE's studies will explore further the relationship between time and learning. The most extensive analysis will be undertaken as part of the Instructional Dimensions Study, which will examine how time is related to learning in a variety of instructional situations. Further, because this study distinguishes between regular (noncompensatory) and extra (compensatory) instructional time, it will be possible to make inferences about how much extra time is needed to make a difference. Other studies will examine the effects of time for different student populations and different teaching techniques.

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[5] These conclusions are based on cross-sectional analyses of data from State annual reports. Before further conclusions can be drawn, it is necessary to explore the hypothesis using longitudinal data and additional data sources. A project of this nature is currently being funded by the Compensatory Education Study.

Teacher Training

A final area of interest is teacher training. NIE is examining whether training practices differ for effective and less effective programs. Although training is not a feature of classroom instruction comparable to those discussed above, it is an area of special interest to Congress as an aspect of program support, because there is some evidence that teacher training and program effectiveness are related.

The literature on teacher training is enormous. NIE focused its research on review of only those evaluation studies that have looked at the effectiveness of instructional specialists and of in-service training in program techniques. These areas were selected not because the research findings in this area were more definitive than in other areas, but rather because special training has often been found to contribute significantly to the effectiveness of compensatory instruction.

The use of specially trained personnel in compensatory instruction frequently has been suggested as characteristic of successful programs (Samuels, 1976; Kiesling, 1973; and Coulson, 1976). Kiesling reports that time spent in instruction is more consistently related to gains in reading achievement when instruction is given by trained reading specialists. The ongoing evaluation of the Emergency School Aid Act (Coulson, 1976) also supports this relationship. In the ESAA study, increased mathematics achievement was reported where more funds were allocated for remedial specialists in mathematics. The findings for reading were similar but not statistically significant. In other studies, however, some contradictory results have been reported. The analysis of schools in Philadelphia by Summers and Wolfe (1975) reported no significant relationships between achievement and the use of specialists. The latter study, however, did not look at specialists per se, but examined the relationship between effectiveness and both education beyond the bachelor's degree and performance on the National Teachers Examination.

Analyses of the effectiveness of in-service training present the most consistent findings. Where successful programs are found, it is frequently reported that teachers were given in-service training at the beginning of the project, and that this training was directly relevant to the content of the instructional program. Wargo et al. (1971, 1972) found teacher training in program methods to be one of six components that characterized successful Title I projects. Both Coulson (1976) and Sweeney and Blaschke (1975) found that the more recent the in-service training, the more it showed relationship to program effectiveness. In the latter study, the number of days of training also was positively associated with reading achievement.

The Instructional Dimensions Study will provide information on the effects of teacher training. The instructional variables and settings which this study explores make an examination of training especially appropriate. Individualized instructional techniques requiring individual sequencing, pacing, and diagnosis are known to be especially demanding of teachers. Special skills and program-related training may be more important for effective implementation of individualized programs than of others. Further, the settings used for the teaching of compensatory education students--mainstream or pullout--are likely to require different experience and skills. Knowledge of whether training makes a difference--and if so, where--will be increased by the in-depth data and focused research questions of the study.

NIE RESEARCH ON EFFECTS OF SERVICES ON CHILDREN

To address these issues of program design, NIE is conducting several different research efforts. In addition to the Instructional Dimensions Study referred to earlier, syntheses and secondary analyses of existing data, conferences on the state-of-the-art in the teaching of beginning reading, and several program design projects have been funded.

The Instructional Dimensions Study

The Instructional Dimensions Study is NIE's major data collection effort in the area of effects of services on students. The study examines the relationship between the program variables described in the previous section--individualized instruction, instructional settings, amount of instruction, and teacher training--and a number of student outcomes. The study's major purpose is to assess the effects on achievement in reading and mathematics of variations in individualized instructional methods and in instructional setting (mainstream versus pullout instruction). Effects of instructional time and teacher training will also be examined, as will the impact of different program characteristics in such areas as students' attitudes toward reading and mathematics and their class attendance.

A critical initial step in developing the study was to define the term individualization. As noted earlier, programs can be individualized in a number of ways. Individualized programs have been characterized as involving special classroom arrangements, such as one-to-one or small group instruction; incorporating special types of decisionmaking, such as performance agreements or student-centered decisionmaking; or employing curricula specifically adapted to individual students needs. Since all aspects of individualization could not be examined successfully within the constraints of the NIE study, a special attempt was made to restrict the focus of the research. The definition of individualized instruction was therefore sharpened to include only specially structured curricula with the following four characteristics:

- Specific learning objectives assigned to individual children
- Small group or individual pacing
- Diagnosis and individual prescription
- Alternative learning paths and sequencing for individual children

The strongest evidence that differences in program characteristics were related to differences in achievement was felt to exist for programs with these characteristics. Further, discussions with teachers and curriculum specialists indicated that curricula with these characteristics were, in fact often used for compensatory instruction where the intention was to provide individualized teaching.

A second step in designing the study was to determine the scope of the research. It was felt that the major questions could be best addressed by in-depth data collection and assessment of a limited number of programs varying in instructional dimensions and setting. However, to avoid having a sample that was too limited, compared to the variety of school districts involved in compensatory education, the study was designed with the following features: (1) the projects studied are currently being delivered in Title I-participating or Title I-eligible schools; (2) the projects examined come from five States and 14 geographically diverse districts, located in urban, rural, and suburban settings; and (3) the data collected will permit comparisons between characteristics of districts selected for the Instructional Dimensions Study and the nationally representative sample included in the National Survey of Compensatory Education. Areas where comparisons can be made include the procedures used to select schools and students for compensatory education programs, per-pupil and program costs, and the range of compensatory services offered.

The study is currently in the initial phase of data collection. Nearly 12,000 1st- and 3d-grade students in 440 classrooms have been given achievement tests in reading and mathematics. Their attitudes toward learning in these subject areas were also measured. Interviews are being conducted with district personnel, school principals, and regular and supplemental teachers. Regular and supplemental instruction will be videotaped at midyear and analyzed using a specially tailored coding system. Teachers will be reinterviewed in the spring to document the nature of instruction throughout the school year, and at that time participating students will be retested on achievement and attitude.

Analyses of the data will directly examine relationships between achievement and variations in instructional practice and setting. Subsidiary analyses will investigate associations between teacher training and amount of instructional time, and program effectiveness. In both cases, a special variant of the then-unpublished Cooley and Lohnes (1976) model of learning, adapted by Cooley and Leinhardt (1975), will be used to organize the data and guide the analyses. Detailed information also will be available on the costs associated with different approaches to delivering compensatory reading and mathematics instruction. When compared with the cost data collected in the representative sample of school districts included in the National Survey of Compensatory Education, they will indicate whether it is practicable to adopt these successful approaches on a large scale.

The Instructional Dimensions Study is not a summary national evaluation of Title I effectiveness. However, it will provide information important to our examination of Title I, in that it will help to answer the question of whether individualization can be an effective way of delivering instruction to low-achieving students and also show the conditions under which individualization seems to work in reading and mathematics. It will provide information to educators and policymakers who want to know what can be done to make compensatory services meet children's educational needs, and will indicate whether the channeling of funds into individualized programs is likely to prove helpful.

Other Studies of Program Variables

Syntheses and Secondary Analyses.--To supplement the research in the Instructional Dimensions Study, NIE is also conducting a series of small-scale analyses of the relationship between achievement and the program variables discussed above. Like the Instructional Dimensions Study, these projects focus on reading and mathematics programs, but they do not involve extensive original data collection work and cannot provide information of the same depth. The supplementary studies, which are mostly syntheses and secondary analyses of existing local data bases, will provide additional findings on:

- What is known about the effects of varied forms of individualization on learning
- How reading problems vary among children and across grade levels
- The effectiveness of activity-based approaches to mathematics instruction

- How instructional time, grouping practices, and teacher training relate to achievement across a variety of instructional approaches

- The long-term effects of summer vacations on the achievement of compensatory education children

Reading Conferences.--A series of conferences is being held to explore and synthesize what is known about how to teach beginning reading. Experts in the fields of instructional practice and theories of learning are writing papers and meeting to discuss their understanding of how reading skills should be introduced and developed in the early elementary grades. The major goal is to discover whether experts agree on the critical aspects of early instruction and whether the curricula which are typically used in schools reflect such a consensus. In addition, the papers and conferences will indicate whether different approaches are recommended for teaching students of varying achievement levels.

Alternative Designs.--Alternative designs for the delivery of compensatory education services are being developed independently by four different research groups. These projects do not necessarily address the program design areas evaluated in our other studies, but rather were initiated to provide an opportunity for individuals interested and experienced in compensatory education to suggest new practices. The studies vary widely in focus. They include an examination of alternative ways of providing compensatory education to secondary school students; development of a program for cross-age tutoring; formulation of a model for a client-centered school; and approach to instruction which builds on the strengths of cultural divergence.

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CHAPTER V. ADMINISTRATION

Title I is implemented through a complex administrative structure involving Federal, State, and local levels of government. The Department of Health, Education, and Welfare and State Education Agencies carry out a number of responsibilities in administering Title I: funds distribution, rulemaking, monitoring, enforcement, technical assistance, and evaluation.

In performing these responsibilities, they interpret the wishes of Congress and communicate their interpretations to LEAs about who will receive Title I services and about how, and under what circumstances, these services are to be delivered. LEAs, in turn, use this information in determining how best to provide Title I services.

The way in which these administrative responsibilities are carried out can have an important influence on Title I's effectiveness. For example, clear articulation of the allocation regulations and procedures, and the collection and use of up-to-date data can increase the probability that funds are indeed targeted to the appropriate schools and students. Timely funding can improve the ability of LEAs to plan and implement Title I programs. Good technical assistance from States to LEAs can help keep district personnel in touch with recent findings on program design.

Given the administrative structure that has been established, the success of the Title I program in achieving its objectives depends on the quality of management at each level of government and on the nature of the interactions among the levels. The complexity of the administrative structure also places very real limits on the ability of Congress to bring about modifications in Title I. Although Congress is in a position to exert fairly extensive influence on Federal administrative behavior, it has less direct control over States and even less over LEAs. Therefore, in order to make recommendations for improvements in Title I that have any real chance of affecting local district practice, more information about the ways in which HEW and the States administer Title I and about the effects of those administrative activities on local districts is needed.

In order to address these issues, NIE is conducting several research projects on the administration of Title I. They have three major objectives:

- To describe the process by which administrators transform the provisions of the Title I statute into educational services
- To identify, to the extent possible, the factors that affect the way in which the Title I program has been implemented
- To determine whether (and in what ways) Congress may be able to influence local Title I services through efforts to modify administrative practices

The individual studies focus primarily on administrative activities at one or another of the levels of government. Both the Survey of Legal Standards and the Study of Federal Administration examine Federal administration and its impact on States and local districts. Two other studies focus on activities at the State level: the Study of State Administration examines the various ways in which States administer Title I and the impact of these State activities on local districts; and the Study of State Compensatory Education Programs looks at the administration of State compensatory programs and its effect on the delivery of services at the local level. Information about how local districts implement Title I will be obtained from a number of studies, including the National Survey of Compensatory Education, the research on the Demonstration Projects, and separate studies on district Parent Advisory Councils and rural school districts.

These studies, their objectives, the types of data expected from them, and the ways in which they relate to the overall objectives are discussed in the sections that follow.

FEDERAL ADMINISTRATION

Through two Federal administrative studies, NIE will describe how administrative activities are carried out at the Federal level and will detail the Federal guidance and direction provided for State and local officials. The studies will also identify factors that may affect Federal management, and the likely effects of possible modifications in Federal administrative activity.

Study of Legal Standards

The Federal Government's administration of Title I is based on the legal framework under which States and LEAs must operate. The framework includes the Title I statute, regulations, guidelines, program directives, and formal letters of advice, all of which elaborate on and provide more concrete meaning to the statute. This study treats all of these elements of the Federal legal framework. It will provide a complete account of the existing legal framework and an analysis of its implications for the operation of Title I. It has five basic objectives:

- To analyze the Title I statute and regulations in order to identify areas in which they may be unclear or inconsistent
- To analyze the guidelines, program directives, and advisory letters in light of the regulations to assess the clarity and consistency of the overall Title I legal framework
- To examine various ways the Federal Government has chosen to communicate and disseminate the legal framework to States and to local districts
- To analyze the ways in which State interpretations and elaborations of the Federal legal framework alter the requirements placed on LEAs
- To identify ways in which the overall framework may restrict the delivery of educational services by LEAs

The Legal Standards study includes an in-depth analysis of the written components of the Federal legal framework. This analysis includes an examination of the framework since the inception of Title I, including the recently enacted regulations, in order to identify substantive changes and to assess their possible impact.

The study also includes interviews conducted with Title I officials in 10 States to gather information on formal and informal State interpretations of the Federal standards and to determine the degree to which State additions to and elaborations of the Federal legal framework improve or hinder the consistency and clarity of the legal standards. The interviews also will provide information on States' assessments of the Federal legal framework and on the procedures the Federal Government uses to disseminate and interpret the framework.

On the basis of these research activities, NIE hopes to identify the likely effects of possible modifications in the Title I legal framework or in the procedures used to disseminate its provisions.

Study of Federal Administration

In administering Title I, the Federal Government is also responsible for monitoring State activities, enforcing Title I regulations, providing technical assistance, and evaluating the effects of programs. Although all of these tasks are assigned to HEW, responsibility for the program is dispersed throughout the Department. The Division for Education of the Disadvantaged, the unit in the Office of Education responsible for Title I, has a role in performing all the administrative functions but its actions are seldom final. They frequently are reviewed by the Office of the Associate Commissioner for Compensatory Education Programs, the Deputy Commissioner for the Bureau of Elementary and Secondary Education, the Commissioner of Education, and the Secretary of HEW. The Title I office also shares parts of the evaluation responsibility with OE's Office of Planning, Budgeting, and Evaluation, and along with HEW's Audit Agency monitors and enforces the implementation of Title I requirements at the State and local levels.

Even if only one office were fully responsible for Title I, it would sometimes be possible for SEAs and LEAs to receive inconsistent direction. But because several offices must interact, coordination within the Federal Government is especially important in determining the content and consistency of guidance given to SEAs and LEAs.

In order to understand the direction provided by the Federal Government, NIE is conducting a study of the Federal administration of Title I. Its objectives are as follows:

- To identify the areas in which the guidance and direction given to States and LEAs may be unclear
- To identify organizational factors that may account for any lack of clarity in the Federal direction provided to States and LEAs
- To assess the likely effects of possible modifications in Federal administrative activities

To achieve these objectives, the study will describe Federal management activities, including the various procedures that HEW uses to provide direction to SEAs and LEAs. It will also analyze the contribution that each relevant HEW office makes to the composite effect of this direction. This research is being conducted through interviews with Washington-based and regional HEW officials, direct observation of program administration activities, analysis of documents and reports, and examination of administrative reorganization efforts and of decisions on staff utilization. Moreover, an examination of the history of many of these issues will help to illuminate why the Federal administration of Title I has evolved to its present form.

Several specific areas of Federal management are being examined. Among HEW's important responsibilities are monitoring and enforcement, which it performs by conducting annual program reviews of each State and by auditing a sample of States. An analysis of program reviews, audit reports, and interviews with appropriate officials will provide information about the effects of such activities on SEAs and LEAs. Federal officials can also exert considerable influence on States and school districts through the ways in which they provide technical assistance and evaluation. In these areas, research efforts similar to those described for monitoring and enforcement are being conducted. Again, the emphasis is on evaluating the clarity and consistency of the directions given, the ways in which the directions are communicated, and their effects on SEA and LEA practices.

STATE AND LOCAL ADMINISTRATION

Because of their direct supervisory responsibilities over the activities of local districts, the States play an important role in guiding local programs. Although the Federal Government supervises some LEAs directly through audits and monitoring, most Federal direction is filtered through the various State Title I offices on its way to the LEA level. Moreover, the States conduct some Title I administrative activities independent of Washington.

States vary considerably in the way they administer Title I. Some, for example, do little besides distributing funds to LEAs and collecting LEA proposals and evaluations. Others actively disseminate and reinterpret Federal program requirements, monitor local projects, apply sanctions, provide advice, and conduct their own evaluations. The extent of State initiative in these areas may affect the nature of the directives that LEAs receive about the operation of Title I.[1]

Study of State Administration

The Study of State Administration has three objectives:

- To identify differences in the ways that various States administer Title I

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[1] Despite the potential importance of State administration, it has received little careful attention in the past. Aside from a few case studies of Title I administration in individual States, only two major studies (Planar, 1973; Berke & Kirst, 1972) have specifically examined State administrative activity.

- To ascertain whether these differences in State administrative activity have any impact on the ways in which LEAs provide Title I services

- To determine whether and with what effect Congress can influence the ways in which States administer Title I

One component of the study is a national survey of State administrative activities. Interviews with Title I officials in 46 States will yield data about the specific ways in which States perform their responsibilities for rulemaking, monitoring, enforcement, technical assistance and evaluation. This survey will also examine the degree to which several State characteristics (e.g., SEA organizational patterns, SEA recruitment practices for Title I, and customary SEA interactions with the Federal Government and with local jurisdictions) affect how States administer Title I.

Differences in the ways States carry out their responsibilities are important because of their potential impact on the way LEAs implement programs. In order to examine this impact, NIE is conducting two other research activities as part of the Study of State Administration. The first is a series of case studies in eight geographically representative States. These investigations will examine how four districts in each State treat a number of program requirements, such as comparability and program design, in the delivery of services to Title I children. Through interviews at State and local levels, it is possible to determine the extent to which State administrative activity has directly affected the approaches taken by the districts in response to those requirements.

The second is a statistical analysis of the relationship between State activity and local district activity. This study will attempt to correlate differences in State activity with differences in local district administration and service delivery.

Study of State Compensatory Education Programs

In over one-third of the States, local districts receive funds for compensatory education through State-initiated and State-funded programs separate from Title I.

These programs have their own legislative purposes, are typically subject to different rules and regulations, and are frequently administered by other units within the SEA.

The Study of State Compensatory Education Programs examines the following questions:

- What are the differences between the State compensatory programs and Title I?
- What impact do these differences have on the types of compensatory services LEAs provide to children and on the types of children served?
- What modifications can be made in the overall Title I administrative system that will facilitate coordination between Title I and the State programs?
- From the ways in which States administer their own programs, what inferences can be drawn about how States might react if the regulatory structure of Title I were reduced or if Title I funds were available on a bloc-grant basis?

In the Study of State Compensatory Education Programs, NIE will collect data about each of these questions through interviews with State and local officials involved in administering State compensatory education programs. Specifically, a comparison of State programs with Title I will identify differences between the two in such areas as program objectives, student eligibility, number of students served, types of program services delivered, and administrative practices both at the State and the local levels.

The study also includes an examination of the effects of these differences on the delivery of services at the local level. For example, it asks whether State funds are being used to provide more intensive services to children already receiving Title I services, to nontargeted children eligible under Title I, or to children not eligible under Title I. The study also will show whether the existence of a State program results in conflicts between the regulations for Title I and the State program that create difficulties in implementation at the local level.

In one sense, an examination of State compensatory programs may indicate how States might administer Title I if the Federal Government were not involved. Therefore, some judgments about how States might administer Title I if the Federal legal standards for the program were relaxed may be possible. This examination could also clarify the possible impact of making Title I funds available on a bloc-grant basis.

Data About Local Administration

Within the overall framework of the direction provided by Federal and State administrators, local personnel have a wide variety of options regarding such issues as the nature of planning activities, the actual selection of types of services, and the utilization of personnel. They also can specify whether decisionmaking authority for the program rests with central office staff or at the individual school building level and the extent of community involvement in the decisionmaking process. Local decisions in each of these areas clearly affect the types of Title I services that are delivered.

Data about local administration will be available from a number of studies. The Study of State Administration will furnish evidence from case studies in 32 districts about the types of decisions that district administrators make regarding various aspects of the Title I program and some of the reasons for these decisions. The 13 Demonstration Projects will yield extensive data about local administrative activities, especially patterns of decisionmaking, and the influence that major changes in the Title I allocation procedures have on these activities. The National Survey of Compensatory Education will yield representative information about local administration, particularly with regard to local efforts to create coherent programs.

Two additional studies to explore specific issues related to local administration of Title I have been initiated. The Study of Parent Advisory Councils is examining the nature of parent involvement in Title I Administration. Case studies are being conducted in nine school districts to examine how Parent Advisory Councils affect local decisions about Title I programs. The second project, the Rural Schools Study, is utilizing case studies to examine whether small, rural school districts have particular difficulties in implementing Title I. The study will analyze special problems these districts encounter in implementing Title I programs and indicate whether changes in the administrative structure would facilitate delivery of services in such districts.

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APPENDIX A. SECTIONS 821 AND 150 OF PUBLIC LAW 93-380

Public Law 93-380
93rd Congress, H. R. 69
August 21, 1974

An Act

To extend and amend the Elementary and Secondary Education Act of 1965, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Education Amendments of 1974".

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PART B—EDUCATIONAL STUDIES AND SURVEYS

STUDY OF PURPOSES AND EFFECTIVENESS OF COMPENSATORY EDUCATION PROGRAMS

SEC. 821. (a) In addition to the other authorities, responsibilities and duties conferred upon the National Institute of Education (hereinafter referred to as the "Institute") by section 405 of the General Education Provisions Act and notwithstanding the second sentence of subsection (b)(1) of such section 405, the Institute shall undertake a thorough evaluation and study of compensatory education programs, including such programs conducted by States and such programs conducted under title I of the Elementary and Secondary Education Act of 1965. Such study shall include—

(1) an examination of the fundamental purposes of such programs, and the effectiveness of such programs in attaining such purposes;

(2) an analysis of means to identify accurately the children who have the greatest need for such programs, in keeping with the fundamental purposes thereof;

(3) an analysis of the effectiveness of methods and procedures for meeting the educational needs of children, including the use of individualized written educational plans for children, and programs for training the teachers of children;

(4) an exploration of alternative methods, including the use of procedures to assess educational disadvantage, for distributing funds under such programs to States, to State educational agencies, and to local educational agencies in an equitable and efficient manner, which will accurately reflect current conditions and insure that such funds reach the areas of greatest current need and are effectively used for such areas;

(5) not more than 20 experimental programs, which shall be reasonably geographically representative, to be administered by the Institute, in cases where the Institute determines that such experimental programs are necessary to carry out the purposes of clauses (1) through (4), and the Commissioner of Education is authorized, notwithstanding any provision of title I of the Elementary and Secondary Education Act of 1965, at the request of the Institute, to approve the use of grants which educational agencies are eligible to receive under such title I (in cases where the agency eligible for such grant agrees to such use) in order to carry out such experimental programs; and

(6) findings and recommendations, including recommendations for changes in such title I or for new legislation, with respect to the matters studied under clauses (1) through (5).

(b) The National Advisory Council on the Education of Disadvantaged Children shall advise the Institute with respect to the design and execution of such study. The Commissioner of Education shall obtain and transmit to the Institute such information as it shall request with respect to programs carried on under title I of the Act.

(c) The Institute shall make an interim report to the President and to the Congress not later than December 31, 1976, and shall make a final report thereto no later than nine months after the date of submission of such interim report, on the result of its study conducted under this section. Any other provision of law, rule, or regulation to the contrary notwithstanding, such reports shall not be submitted to any review outside of the Institute before their transmittal to the Congress, but the President and the Commissioner of Education may make to the Congress such recommendations with respect to the contents of the reports as each may deem appropriate.

(d) Sums made available pursuant to section 151(i) of the Elementary and Secondary Education Act of 1965 shall be available to carry out the provisions of this section.

(e)(1) The Institute shall submit to the Congress, within one hundred and twenty days after the date of the enactment of this Act, a plan for its study to be conducted under this section. The Institute shall have such plan delivered to both Houses on the same day and to each House while it is in session. The Institute shall not commence such study until the first day after the close of the first period of thirty calendar days of continuous session of Congress after the date of the delivery of such plan to the Congress.

(2) For purposes of paragraph (1)—

(A) continuity of session is broken only by an adjournment of Congress sine die; and

(B) the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of the thirty-day period.

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"ALLOCATION OF FUNDS WITHIN THE SCHOOL DISTRICT OF A LOCAL EDUCATIONAL AGENCY

"SEC. 150. (a) For any fiscal year not more than 20 local educational agencies selected for the purpose of section 821(a)(5) of the Education Amendments of 1974 may elect, with the approval of the district-wide parent advisory council which is required to be established under section 141(a)(14) of this title, to allocate funds received from payments under this title on the basis of a method or combination of methods other than the method provided under section 141(a)(1)(A). Any method selected pursuant to this section shall be so designed and administered as to be free from racial or cultural discrimination.

"(b) Any local educational agency to which this section applies shall submit such reports to the Director of the National Institute of Education at such time and in such manner as the Director may reasonably require to carry out his responsibilities under section 821(a)(5) of the Education Amendments of 1974.

RESPONSE TO CONGRESSIONAL DIRECTIVES

Because the whole study is meant to answer questions asked by Congress, it seems useful to repeat the charges given NIE by the Congress in Section 821, and to indicate how the overall study is designed to address these questions.

Chapter I of this interim report explains how NIE made the charge to examine the "fundamental purposes" of compensatory education programs the organizing principle for the entire study. It enumerates the fundamental purposes and establishes the strategy of assessment. The remainder of the report, particularly Chapters II, III, and IV, provides details about the information being gathered in order to examine the effectiveness of compensatory programs.

A second request was for an analysis of the means of identifying accurately the children who have the greatest need for such programs, in keeping with the fundamental purposes thereof. This is related to a further charge: to explore alternative methods, including the use of procedures to assess educational disadvantage, for distributing funds. The work on funds allocation described in Chapter II--e.g., research on various poverty definitions, and on the feasibility and effects of using achievement criteria--is related to these charges.

NIE also was asked to analyze the effectiveness of methods and procedures for meeting the educational needs of children, including the use of individualized written lesson plans for children, and programs for training the teachers of children. Research on these topics is described in Chapter IV. Research on teacher-training practices is described in Chapters III and IV.

Finally, NIE was authorized, subject to the concurrence of the Commissioner of Education, to conduct not more than 20 experimental programs if necessary to carry out the purposes of Section 821. Under this authority, 13 school districts initiated several changes in procedures for allocating compensatory education funds. For example, many are changing from the use of poverty to achievement criteria for determining program eligibility, and changing per-school and per-pupil expenditures.

APPENDIX B. MAJOR RESEARCH PROJECTS

FUNDS ALLOCATION RESEARCH

Census Tabulations of Poverty Statistics

The Bureau of the Census is using the 1974-75 Census mapping of school boundaries on the fifth count data of the 1970 Census to provide NIE with demographic information by district, county, and State. Of particular importance is the total number of persons and the total number of children in poverty according to different definitions of poverty, including revised versions of the Orshansky index of poverty currently used in the Title I formula. These data will be used in simulations of Title I funding alternatives.

Contractor: U.S. Bureau of the Census
Washington, D.C.

Completion: January 1977

Demonstration Projects

Sixteen contracts were awarded to States, with school districts as subcontractors, to plan projects demonstrating the effects of changing rules for allocating Title I funds within school districts. During the 1975-76 school year, the 16 districts developed and refined their plans to change the schools' funding eligibility criteria from poverty to achievement and/or to change the number of schools and pupils who participate in Title I. During the 1976-77 and 1977-78 school years, the 13 districts that proceeded with their plans are operating under changed funds allocation procedures, authorized by waivers from the Commissioner of Education, as specified under Sections 821 and 150 of P.L. 93-380.

Contractors: See text for districts

Report on third-year plan: June 1977

Completion: July 1978

Effects of Compensatory Education Demonstration Projects

The contractor is collecting data on the results of the planning and implementation of the demonstration projects in the participating districts. Effects of the demonstrations are being measured in the following areas: (1) changes in the organization and administration of compensatory programs and services delivered, (2) changes in the services received by students, (3) effects on the characteristics of schools and students served, (4) effects on teaching and testing practices, (5) costs associated with the changes in allocation procedures and concentration levels, (6) achievement outcome results, and (7) community response to changes.

Contractor: Abt Associates, Inc.
Cambridge, Massachusetts

First report: December 1976
Second report: August 1977
Third report: December 1977

Completion: August 1978

Effects of Alternative Grant Structures for Title I Grant System

This project is producing a computerized simulation model that will be used to analyze the impact of alternative compensatory education financing proposals on districts' fiscal behavior. Project tasks include (1) estimation of the impact of variable matching rates and variable bloc grants on local spending behavior, (2) estimation of the relation of local demographic characteristics to local educational spending and to district achievement scores, and (3) estimation of the impact of Title I spending on total educational spending for each State.

Contractor: Martin Feldstein
Cambridge, Massachusetts

Completion: March 1977

Modification of Federal Education Finance Model and Construction of Data Base

This project has expanded the capabilities of a computerized simulation system for calculating allocations to States, countries, and districts using different program eligibility criteria and different formulas. It will perform statistical operations on the data and provide users with comparative tables on the effects of different formulas. The original system was constructed for the Congressional Research Service (CRS), and the expanded version is being made available for the use of the CRS.

Contractor: Team Associates, Inc.
Washington, D.C.

Completed

Relationship Between Poverty and Achievement

Several data sets are being analyzed in order to describe what is known about the relationship between poverty and academic achievement. Contractors will synthesize existing information about the correlation between family income and achievement at the individual level and examine longitudinal data to determine whether changes in family income are associated with concomitant changes in children's achievement.

Contractors: National Children's Bureau
London, England

Mathematica, Inc.
Princeton, New Jersey

Nadine Lambert
Berkeley, California

Completion: July 1977

Relationships Between Title I and Other Educational Expenditures (Planned)

This research analyzes the effect of Title I on the distribution of educational resources among different types of school districts. It considers the relationship of Title I to general patterns of Federal aid to education and to overall levels of LEA expenditure.

Completion: September 1977

Student Achievement Measures as Title I Eligibility Criteria

The objectives of this study are to (1) provide files of student achievement test results for as many States and school districts as possible; (2) define and evaluate strategies for obtaining student achievement data for use in the actual allocation of Title I funds on the basis of achievement scores, including analysis of the feasibility, cost, and accuracy of the strategies; and (3) assess the distributional consequences of changing allocations to achievement-based formulas.

Contractor: Cemrel, Inc.
St. Louis, Missouri

Completion: June 1977

Subcounty Allocation Processes

The purposes of this contract are to (1) analyze the manner in which States determine Title I allocations to school districts at the subcounty level, (2) evaluate the effects on school districts of the use of different subcounty allocation criteria, (3) analyze the extent to which the U.S. Office of Education can directly determine school district grants, and (4) evaluate possible alternate subcounty allocation methods.

Contractor: Applied Urbanetics, Inc.
Washington, D.C.

First report: December 1976

Completion: June 1977

RESEARCH ON SERVICES

NIE National Survey of Compensatory Education

The results of this survey of a national sample of school districts will (1) identify and describe the purposes of existing compensatory programs; (2) describe the characteristics of operating programs, including ways in which the allocation of funds is decided and students are selected for participation; and (3) describe how programs are evaluated. Respondents include State personnel, district administrators and program specialists, principals, teachers, and chairpersons of Parent Advisory Councils in a nationally representative sample of 100 school districts.

Contractors for data collection:
Stanford Research Institute
Menlo Park, California, and
National Opinion Research Center
Chicago, Illinois

Completed

Contractor for analysis: National Opinion Research Center
Chicago, Illinois

Completion: June 1977

Noninstructional Services Provided Under Title I

Through a series of case studies this project will examine Title I expenditures in areas not directly related to instruction, such as health, counseling and psychological services, food, transportation, libraries, and resource centers. In addition to descriptive data about the services provided, information will be gathered on how school district personnel determine the amount of financial resources to devote to noninstructional services and how they evaluate the effectiveness of such services.

Contractor: National Opinion Research Center
Chicago, Illinois

Completion: May 1977

Teacher-Training Study (Planned)

The purpose of the study is to examine the types and amounts of training that compensatory education teachers have received. Both formal (e.g., academic degrees) and informal (e.g., workshops) training will be examined. Teacher responsibilities (such as subject matter taught) and instructional practices will be compared to training.

Completion: November 1977

RESEARCH CONCERNING EFFECTS ON CHILDREN

Alternative Approaches to Compensatory Education

The four projects discussed below are designed to develop alternatives for schools in providing compensatory education.

Cross-Age Tutoring as a Way of Increasing Student Involvement in Learning.--This project is developing plans for the systematic implementation and evaluation of cross-age tutoring. Under the plans, secondary school students will tutor elementary school students as an integral part of the school program. The aim is to use tutoring to raise achievement among tutors as well as tutees, and to encourage students to take greater responsibility for their own learning.

Contractor: UCLA Center for the Study of Evaluation
Los Angeles, California

Completion: March 1977

Federal Strategies for Delivering Basic Skills Assistance to Secondary Schools and Students.--Four strategies are being developed to provide effective compensatory education programs in junior and senior high schools. The strategies are designed to encourage new approaches in the teaching of basic skills to secondary school students.

Contractor: Stanford Research Institute
Menlo Park, California

Completion: January 1977

A Restoration Model as an Alternative to Compensatory Education.--The approach developed in this project emphasizes (1) acceptance and responsiveness to the alternative cultures found in American communities, and (2) educational self-determination for parents and children..

Contractor: Fanon Research and Development Center
Los Angeles, California

Completion: February 1977

Small Client-Controlled Elementary Schools.--This project is developing approaches to school reorganization which could lead to more effective compensatory education programs with emphasis on client control and school-based management.

Contractor: University of Kansas
Lawrence, Kansas

Completion: January 1977

Distribution and Concentration of Title I Funds in New Jersey

Statewide data are being analyzed to determine whether relationships exist between Title I per-pupil expenditures and (1) the type of services delivered, (2) staffing patterns, and (3) student achievement.

Contractor: Education Improvement Center South
New Jersey Department of Education
Trenton, New Jersey

Completion: December 1976

Extent of Parent Involvement in Setting Objectives at the Elementary Level

The purpose of this contract was to identify school districts which involve parents, teachers, and students in setting goals for children's academic programs and, where possible, to document the effectiveness of these programs.

Contractor: Education Turnkey Systems
Washington, D.C.

Completed

Instructional Dimensions Study

This study, designed to assess the impact of selected characteristics of instruction on student achievement and attitudes towards instruction, has been conducted in two phases: the design phase and the implementation phase.

Designs for a Study of the Effectiveness of Individualized Instruction.--During 1975 four contractors prepared alternative designs for a major study of individualized instruction. These formed the basis of the final design of the instructional dimensions study described below.

Contractors: Contemporary Research, Inc.
Los Angeles, California

Kirschner Associates, Inc.
Washington, D.C., and
Education Turnkey Systems
Washington, D.C.

Learning Research and Development Center
Pittsburgh, Pennsylvania

Research for Better Schools
Philadelphia, Pennsylvania

Instructional Dimensions Study.--The purpose of this study is to examine the relationship between selected characteristics of instruction and students' reading and mathematics achievement and attitudes toward instruction. Specifically, the study is designed to assess whether programs which differ along the dimensions generally associated with individualized instruction and classroom setting (i.e., pullout and mainstreaming programs) also differ systematically in their effects upon students. The study involves 12,000 students in 1st and 3d grades in 440 reading and mathematics classrooms. Additional analyses will examine the relationship between effectiveness, teacher training, and instructional time.

Joint contractors:	Kirschner Associates, Inc., and Education Turnkey Systems, Washington, D.C.; Learning Research and Development Center, Pittsburgh, Pennsylvania; and Steiger, Fink and Kosecoff, Arlington, Virginia
Completion:	July 1977

Relationship Between Theory and Practice in Beginning Reading Instruction

Through a series of papers and conferences, this project attempts to (1) integrate reading research and its implications for school practice, (2) specify criteria for successful beginning reading programs, and (3) assess existing programs in the light of these criteria. The major goals are to ascertain whether agreement exists on the critical aspects of early instruction and whether current curricula reflect such a consensus.

Contractor:	Learning Research and Development Center Pittsburgh, Pennsylvania
Completion:	July 1977

Reviews and Syntheses

The studies discussed in the following paragraphs supplement NIE's data collection efforts by analyzing existing information.

Activity-Based Approaches to Mathematics.--Many mathematics programs financed by compensatory education use the actual manipulation of physical objects to teach mathematics in the belief that children learn best by progessing from the use of concrete objects and pictorial materials to the use of symbols. This project has examined existing information to determine whether this teaching method is effective for compensatory education pupils.

Contractor: Ohio State University
Columbus, Ohio

Completed

Defining the Locus and Nature of Reading Problems.--Two contracts have been awarded for the synthesis and re-analysis of data from studies of reading. One study is using individual student data from recent evaluations to explore the relative success of special reading programs in early and later grades, the long-term effects of such programs, and the effectiveness of various program components for reading problems in specific population groups. The second contract has focused on secondary analyses of data on reading programs collected originally for the U.S. Office of Education. The impact of various program characteristics on the acquisition of particular reading skills is being examined using information about children in both compensatory and regular reading programs.

Contractors: Harvard University
Cambridge, Massachusetts

Completion: January 1977

International Reading Association
Newark, Delaware

Completed

Effectiveness of Individualized Instruction.--This project is compiling evaluation findings on the effectiveness of different types of individualized instruction to identify characteristics of successful programs, including both compensatory education programs and those serving a broader student population. Validated descriptions of a wide variety of individualized programs which have proven effective will be analyzed in order to isolate those elements or combinations of characteristics which are crucial to success.

Contractor: Educational Evaluation and Research, Inc.
Menlo Park, California

Completion: January 1977

Findings and Implications of Previous Evaluations of Compensatory Education.--Previous evaluations of compensatory education will be analyzed in order to determine (1) how these evaluations have contributed to the development of evaluation methodology, (2) which of the techniques and instruments used proved most satisfactory, (3) what previous findings imply about the nature of compensatory education expenditures and district practices over the last decade, and (4) the strength and validity of the inferences about educational achievement which have been drawn from these evaluations.

Contractor: American Institutes for Research
Palo Alto, California

Completion: June 1977

Secondary Analysis of Data on the Effectiveness of Compensatory Education.--The major purpose of this study is to examine the effects of summer vacation on the achievement of groups of students followed across grade levels. The size and consistency of the "summer drop-off" will be explored for students of different initial achievement levels, from different SES groups, and of different grade levels.

Contractor: Stanford Research Institute
Menlo Park, California

Completion: February 1977

ADMINISTRATION

Study of Federal Administration (Planned)

This study is examining how Federal officials in HEW perform Title I administrative responsibilities, including funds distribution, monitoring, enforcement, technical assistance, and evaluation. In addition to descriptive data, there will be information on the degree to which factors such as Congressional input, internal HEW coordination, staff assignment and utilization patterns, and communication from the field influence the way these responsibilities are carried out.

First report: July 1977

Completion: June 1978

Survey of Legal Standards

This project examines how Title I and State compensatory education programs are regulated in a geographically representative sample of States and analyzes the degree of clarity and consistency in Federal Title I regulations, the differences and similarities between these and State regulations, and problems of implementation at the State and local levels.

Contractor: The Lawyers' Committee for Civil Rights Under Law
Washington, D.C.

Completion: June 1977

Study of Louisville Title I Desegregation

This project examines the extent to which current Title I regulations accommodate the needs of a recently desegregated school system. Because desegregation changes former school service areas, these districts claim to have difficulty delivering services to students with special needs, while adhering to regulations.

Contractor: Jefferson County Education Consortium
Louisville, Kentucky

Completion: June 1977

Study of Parent Advisory Councils

Nine case studies of local school districts, located in several States, are examining variations in (1) the nature of Parent Advisory Council involvement in Title I administration, (2) the organizational characteristics of PACs that are most likely to be associated with different types of parental involvement, and (3) State and local administrative practices contributing to parent participation.

Contractor: Kirschner Associates, Inc.
Washington, D.C.

Preliminary Report: July 1977

Completion: October 1977

Study of State Administration

This study has two purposes: (1) to provide a description of the nature and amount of State management activities in the administration of Title I, primarily those relating to the interaction between SEAs and LEAs; and (2) to identify variables which are correlated with State management, especially those which Congress can influence. Survey and case study data will be obtained to achieve these objectives.

Joint contractors: Booz Allen and Hamilton, Inc.
Washington, D.C., and
Syracuse Research Corporation
Syracuse, New York

Completion: May 1977

Study of State Compensatory Education Programs (Planned)

The purpose of this study is to examine the programmatic and administrative relationships between Title I and various State compensatory education programs. The study will provide information on (1) the differences between State compensatory programs and Title I; (2) the impact these differences have on the types of compensatory services LEAs provide to children and on the types of children served; (3) the modifications which can be made in the overall Title I Administrative system that will facilitate coordination between Title I and State programs; and (4) inferences which can be drawn from the ways in which States administer their own programs, about how States might react if the regulatory structure of Title I were reduced or if Title I funds were available on a bloc-grant basis.

Completion: July 1977

Private School Students' Involvement in Title I

This project is concerned with the degree to which Title I is now providing private school students with the services to which they are entitled. It is documenting serious problems and barriers to the effective delivery of such services and identifying ways of guaranteeing that eligible nonpublic school students can participate effectively in Title I.

Contractor: Council on American Private Education
Washington, D.C.

Completion: November 1977

Rural Schools Project (Planned)

This project is utilizing case studies to examine whether small rural school districts have particular difficulties in implementing Title I. The study will analyze special problems these districts encounter in implementing Title I programs and will indicate whether changes in the administrative structure would facilitate delivery of services in such districts.

Completion: February 1978

Test Bias and the Classification of Children

With the growing emphasis on children's rights, lawyers have become increasingly concerned with the constitutionality of labeling children, particularly if the testing instruments are themselves possibly biased. This project will prepare a review of the relevant legal issues and case law precedents and identify implications for compensatory education and Title I.

Contractor: Paul Trachtenberg, Esq.
New Brunswick, New Jersey

First report: March 1977

Completion: July 1977

APPENDIX C. TITLE I FUNDS ALLOCATION PROCESS

Chapter II included a brief summary of the process by which Title I funds are allocated to school districts and to schools and students within these districts. A more detailed review of this process is presented below.

Title I has two sections: Part A, which provides grants to Local Educational Agencies (LEAs), to State Educational Agencies' (SEAs) programs, and to the Bureau of Indian Affairs; and Part B, which provides grants to States with high "effort" so that States can choose LEAs in which to fund special projects. Table C-I demonstrates how fiscal year 1977 funding for Title I was allocated nationwide among different components of the program. Table C-2 presents similar tabulations by State. The remainder of this Appendix deals with grants to LEAs under Part A.

TABLE C-I

Title I Allocations for Fiscal Year 1977

Title I -- Part A:

Grants to local education agencies (in United States and Puerto Rico)	$1,700.3M
Grants to local education agencies (outlying areas)	3.2M
Grants to State agency education programs:	
for handicapped children	111.4M
for migrant children	130.9M
for children in institutions for the deliquent	19.0M
for children in adult correctional institutions	7.8M
for children in institutions for the neglected	2.0M
Grants to the Bureau of Indian Affairs	17.6M
Grants of State Education Agencies for administration of Title I	21.2M

Title I -- Part B	
Special incentive grants to local education agencies	24.5M
Special grants to State Education Agencies for administration of Part B	0.2M
Evaluation and Studies	11.5M

PROCEDURES FOR ALLOCATING FUNDS TO SCHOOL DISTRICTS

The calculation by the Office of Education (USOE) of grants for LEAs under Part A would be relatively straightforward if two conditions existed: (1) if appropriations for Title I fully funded the authorizations established by Congress and (2) if counts of low-income students (formula eligibles) were available for each LEA.

Under those circumstances each LEA would be entitled to a grant that would equal the number of formula eligible children multiplied by 40% of the average per-pupil expenditure in the LEA's State (State APPE). Only two constraints on LEAs entitlement would exist under these ideal conditions: (1) the State APPE would never be calculated at less than 80% of the national APPE, nor at more than 120% of the national APPE; and (2) an LEA would never receive less than 85% of its allocation in the prior year.

In practice, neither condition exists, and the procedure is a great deal more complicated. Except for the first year, Title I has never been fully funded, and counts of low-income students by LEAs are available for only a few States. The first problem, inadequate funding, means that LEA grants have to be adjusted until they total the amount of money available (ratable reduction). The second, inadequate data at the LEA level, means that USOE rarely calculates an LEA grant but, instead, calculates grants to counties, leaving to States the task of allocating county grants to LEAs. USOE is able to compute "county grants" because counts of eligible children (Census poor and children in families receiving assistance under the Aid for Dependent Children program) are available at the county level.

Procedure for Formula Allocation to Counties

The precise amount allocated to each county is computed in two steps. First, a formula is used to calculate "entitlements" for each county, which the LEAs in the county would receive if Title I were fully funded at the amount authorized. Because the allocation available for LEA grants falls far short of the total "county" entitlement, the entitlements are reduced in the second step until they equal the money actually appropriated by Congress. All entitlements are reduced by the same percentage (ratable reduction) except that no county may receive less than 85% of its previous allocation. The formula for computing entitlements is as follows:

o The number of formula "eligibles" is calculated. For each county the total number of resident children in each of three categories is identified, and the totals for the three categories are added. The categories are as follows:

(1) The number of children aged 5 to 17, inclusive, from families below the poverty level on the basis of the most recent satisfactory data available from the Department of Commerce.[1]

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[1] At present, the data used are 1970 Census counts, which refer to 1969 family income. The poverty level is a set of 124 poverty lines, each appropriate to a different family type. Orshansky, who developed this poverty definition, used two kinds of information to generate poverty levels. The first is the cost of different kinds of families of a minimally adequate diet, as defined in a Food Plan created by the Department of Agriculture. The second is the ratio of nonfood to food expenditures of low-income people, taken originally from a 1955 Consumer Expenditure survey which she used to estimate typical expenditures on other goods and services. The Survey of these two amounts created poverty levels for families with different numbers of children and adults. Orshansky levels also vary according to the age and sex of the head of the family, and according to whether the family lives on a farm, and can therefore be expected to produce some of its own food. There are no variations for the cost of living in different places.

(2) Two-thirds of the number of children, aged 5 to 17, from families receiving payments under Aid to Families with Dependent Children (AFDC) greater than the current poverty level for a nonfarm family of four.[2]

(3) The number of children aged 5 to 17, inclusive, being supported in foster homes with public funds, or living in institutions for neglected or deliquent children which depend on the local education agency for educational services.[3] (Institutions served by State agencies are eligible for full funding under the Part A State agency set-aside.)

o The second part of the formula is the "cost factor." Title I would, at full funding, provide an additional 40% of educational funding for each eligible child. The cost factor is based on this ratio of 0.4 on each State's average current expenditure per pupil and on the national average, which is used to set maximum and minimum rates.

(1) If the State average per pupil expenditure (APPE) is less than 80% of the national APPE, then the cost factor is 0.4 times 80% of the national APPE.

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[2] The AFDC counts used in fiscal year 1977 refer to January 1976. The AFDC number is meant to be a rough measure of the AFDC "non-poor." This year there were fewer than 600,000 children counted under this section compared to 7.7 million "poor" children. The "AFDC eligibles" are concentrated in a small number of States with high levels of AFDC payments. These States, by assisting their poor, bring some of them out of poverty, so that they are no longer eligible to be counted under the Orshansky criterion. By adding in an estimate of the AFDC nonpoor, Title I attempts to avoid penalizing these States for their generosity.

[3] There are approximately 200,00 foster children and 70,000 neglected and delinquent children (including 1,700 in adult correctional institutions) counted under this section in 1977. These children cannot be counted under the poverty definition, which excludes the institutionalized population and children not living with their families.

(2) If the State APPE is greater than 120% of the national APPE, then the cost factor is 0.4 times 120% of the national APPE.

(3) If the State APPE is between 80% and 120% of the national APPE, then the cost factor is 0.4 times the State APPE.[4]

Table C-3 summarizes the way in which each county's allocation is computed.

TABLE C-3

Process of computing each county's allocation:

Entitlement	= (P + AFDC + NDF)	x .4 SAPPE
	1st multiplier	2nd multiplier
Allocation	= Entitlement	x CA

P = # of children from poor families defined by U.S. Census (Orshansky Index)

AFDC = .67 children from poor families receiving AFDC payments above poverty

NDF = children in institutions for the neglected and delinquent, and in publicly supported foster homes

SAPPE = State average per-pupil expenditure (within limits)

CA = LEA share of Congressional Appropriation as a proportion of entitlement sum (.393 in 1975-77)

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[4] The cost factor is a crude adjustment for educational costs. It has been explained in various ways. One argument is that high cost areas need proportionally more aid to purchase equivalent services, and that expenditures are a good rough measure of costs. Another explanation is that the cost factor is an appropriate reward for effort. It should be noted that the State APPE figures include some Federal money. The definition of State expenditures includes all current expenditures except aid under Titles I, II, and III, ESEA. The numbers currently used refer to 1974-75 expenditures. The cost factors in use range from $414.15 to $621.22. The minimum applies to 15 States; the maximum to 3 States and the District of Columbia. (Cost of education indices are being studied under contract to NCES.)

Procedures for Subcounty Allocation to LEAs

After the entitlements are ratably reduced, each State Educational Agency is notified of the amount which it and the counties of the State are eligible to receive under Title I. In the few States in which counties are coterminous with LEAs this procedure results in USOE calculating allocations to the LEAs.

However, in most States, county and LEA boundaries do not coincide, and the States are responsible for allocating Title I funds to districts within county boundaries or to districts crossing county boundaries. This procedure frequently is termed "subcounty allocation." The rules governing subcounty allocation by LEAs are described below.

The Title I statute does not provide unlimited discretion to the SEAs with respect to the subcounty allocation of Title I funds. The statute provides that the county allocation" . . . shall be allocated among those (local educational) agencies upon such equitable basis as may be determined by the State Educational Agency in accordance with basic criteria established by the Commissioner."

The criteria established by the Commissioner set forth in the regulations generally provide that the SEA must suballocate the Title I funds on the basis of available data which it considers best reflect the current distribution of eligible children from low-income families.

Preliminary results from NIE's study of subcounty allocation procedures indicate that:

- In four States and the District of Columbia, subcounty allocation is unnecessary, since all districts are coterminous with county boundaries.
- Twenty-four States attempt to replicate the Federal formula in subcounty allocation.
- The other 22 use a variety of methods--most of them based on counts of children meeting alternative poverty criteria.

PROCEDURES FOR ALLOCATING FUNDS WITHIN SCHOOL DISTRICTS

Having received a Title I allocation, an LEA must select schools eligible for Title I funded services, target specific schools from among those deemed eligible, and determine which students within those schools will receive services. A brief discussion of these procedures follows.

Choosing Eligible Schools

The basic requirement governing selection of eligible schools by the LEA is that school attendance areas must be selected having high concentrations of children from low-income families. The term "attendance areas" is used in the statute because all needy children living in a targeted attendance area are potentially eligible for services regardless of which public or private school they attend. Other provisions of the law, as well as U.S. Office of Education regulations, serve to interpret and explicate this most basic requirement.

Basically, an LEA is required to select one or several measures of poverty to determine the number of children, aged 5 to 17, from poor families, residing in the LEA as a whole and in each attendance area. Each attendance area with a percentage of poor children at least as high as the average for the district is eligible; alternatively, an LEA can choose to rank areas based on the number rather than the percentage of poor children, deeming those areas eligible which have a number of poor children at least at high as the average attendance area in the LEA. Both methods may be used simultaneously. An LEA may declare schools eligible which have either large numbers or high concentrations of poor children, as long as the total number of attendance areas selected by the combined method does not exceed the number which could have been chosen by either method alone.

Choosing between the percentage and the number method to award eligibility status to attendance areas is only one of the major criteria for determining which of an LEA's attendance areas is eligible for Title I. Several additional procedures are also important.

The Three-Year Hold-Over Option.--This procedure was introduced by the Education Amendments of 1974 and provided that a school attendance area which fails to meet the eligiblity criteria, but which met such criteria and received Title I services in either of the 2 preceding fiscal years, shall be deemed to be eligible. The Congressional intent was to give continuity to Title I programs through substained eligibility.

The Selection of Poverty Measures.--When LEAs apply to SEAs for funding, they may have, wth SEA approval, the freedom to select the poverty measure, or combination of poverty measures, which will define poverty levels for the various school attendance areas. A partial list of poverty measures which LEAs may employ is found in the U.S. Office of Education publication "Title I ESEA: Selecting Target Areas," and includes:

- Number of children whose families receive AFDC
- Number of children from families below poverty level according to U.S. Census
- Number of children eligible for daily free, and reduced price, lunch at school
- School survey
- Health statistics
- Housing statistics
- Employment statistics
- Other

LEAs can use one or more measures, or any combination of measures, but they must apply these measures consistently across schools.

Eligibility by Actual Attendance.--The Education Amendments of 1974 provided that an LEA could, at its discretion, deem any school eligible for Title I payments in which "the proportion of children in actual average daily attendance from low-income families is substantially the same as the proportion of such children in (an eligible attendance area) of that agency."

The amendments reflect a Congressional concern that, in an attendance area in which children of poor families constitute only a small percentage of children resident in the area, but in which large numbers of nonpoverty children do not attend the local schools, the attendance areas would be deemed ineligible despite the fact that the children of poor families consitute a high percentage of the children in actual attendance. The amendment enables such a school to be eligible for Title I funds.

The "No-Wide-Variance" Option.--Another option sometimes available to LEAs is the "no-wide-variance" rule:

> In certain cases, the whole of a school district may be regarded as an area having a high concentration. . .children (of low income families) and be approved as a project area, but only if there are not wide variances in the concentrations of such children among the several school attendance areas in the school district.

Thus, if an LEA can establish to the satisfaction of its SEA that there are "no-wide-variances," all attendance areas become eligible. Under the new regulations, the standard is that the variation between the highest and lowest percentage of children from low-income families is not more than one-third the average of low-income children for the district as a whole.

Thirty Percent Rule.--A final option formerly described in Title I, ESEA: Selecting Target Areas, and currently appearing in the revised 1976 regulations is that with the approval of the SEA ". . . an area with 30% or more of the children from such (low-income) families may be designated as a project area. This rule apparently originated following expressed Congressional concern that inflexible targeting regulations could result in an LEA with a high incidence of poverty declaring ineligible schools with 25% or 30% low-income enrollment, although a neighboring district with a lower incidence of poverty might declare eligible a school with only 10% low-income enrollment.

Selecting Schools

Having developed its list of eligible attendance areas, the LEA must choose which schools it will "target"--that is, fund. The law and regulations impose two constraints on LEAs in choosing which of the eligible schools to fund.

One is the so-called "no-skip" provision, formerly articulated by USOE in Program Guide #44, Section 4.6, and presently appearing in the 1976 revised regulations. In general, the "no-skip" provision provides that an LEA cannot designate an eligible school attendance area as an area to be served by a program unless all attendance areas with a higher percentage or number of children from low-income families have been so designated. The new regulations now provide that an attendance area need not be targeted, i.e., it may be "skipped," if the LEA can demonstrate that educational need is greater in other, lower-ranked eligible areas.

The second constraint is the requirement that every Title I program be ". . . of sufficient size, scope, and quality to give resonable promise of substantial progress toward meeting (the needs of educationally deprived children)."

Student Eligibility and Selection

Although attendance area eligibility is determined by economic criteria, student eligiblity is based on low achievement, described by existing regulations as:

> . . .those children who have need for specific educational assistance in order that their level of educational attainment may be raised to that appropriate for children of their age.

The final step in the process is the selection of children to be served from among those who are eligible and the determination of the amount and type of service each should receive. Specifically, the regulations provide that:

> The project for which an application for a grant is made by a local education agency should be designed to meet the special educational needs of those educationally deprived children who have the greatest need for assistance.

Program Requirements Designed to Ensure That Title I Is An "Add On"

A school district might spend every penny of "Title I money" on "Title I projects," without Title I children reaping the full benefit of the additional funds--their share of locally provided services could simply be reduced, so that, in effect, some of the aid goes to other children or back to the taxpayer. This is a problem in all grant programs, hardly unique to Title I. An elaborate set of requirements however, is designed to prevent this diversion of effort. These requirements include:

Maintenance of Effort.--Requirements intended to prevent LEAs and States from reducing their level of per-pupil expenditure, using Title I to compensate for the difference.

Comparability.--Requirements intended to ensure that the services provided to the target population are comparable (i.e., approximately equal), to the services provided to nontarget populations, before the addition of Title I services.

General Aid Prohibitions.--Requirements intended to ensure that Title I funds are used as categorical aid to meet the needs of educationally deprived children, and not used for the general needs of the schools or the student body at large.

Supplanting.--Requirements intended to ensure that (1) school attendance areas and children participating in Title I programs are not penalized in the provisions of State and local funds because they are receiving special assistance under Title I; (2) Title I funds may only be used to pay for the excess cost of programs; and (3) in no case may Title I funds (a) replace State and local funds that would be provided but for the existence of Title I or, (b) be used to pay for services which are ordinarily provided in nonproject areas with State and local funds.